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DISADVANTAGED NEIGHBORHOODS AND FEAR OF CRIME:
DOES FAMILY STRUCTURE MATTER

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF SOCIOLOGY

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ABSTRACT

Fear of crime is a serious individual and community level problem, particularly in urban areas. A disadvantaged neighborhood with visual signs of disorder has been shown to increase fear of victimization. Disadvantaged neighborhoods are risky environments where the fear of being victimized is often valid and justified. The neighborhood conditions that make criminal victimization more or less likely could also contribute to higher levels of fear of crime. Research has linked such factors as low levels of guardianship and high levels of target attractiveness to greater risks of crime, which in turn leads to greater fears of victimization. Levels of guardianship can be measured by how integrated one feels within the community. Strong community integration, along with social bonds between the neighborhood and family, significantly reduce levels of fear.

Using data from the Project on Human Development in Chicago Neighborhoods (PHDCN), this research looks at the relationship between neighborhood disadvantage and

fear of victimization, specifically whether family structure (i.e., living in a two-parent family) mediates the relationship between neighborhood disadvantage and fear of crime. The analyses found that while a number of individual-level and neighborhood-level variables were significant predictors of both fear of crime and perceptions of neighborhood safety, family structure was not among them; nor were there any significant interactions between the individual- and neighborhood-level variables.

CHAPTER 1 - INTRODUCTION

Throughout the last decade, the crime rate in the United States has been declining, including high profile offenses such as homicide. According to the Bureau of Justice Statistics (2009) the violent crime rate has fallen 17 percent and the property crime rate has declined some 19 percent from 1998 to 2007. Public opinion polls continue to show that crime remains a topic of concern, in spite of the fall in reported offenses (Wallace, 2004).

The impact of fear of crime is especially significant for residents who perceive a high personal vulnerability (i.e., females or the elderly). Such residents report that they do not walk alone in the neighborhood; instead they drive, take an escort, avoid going certain places, or some even carry something to protect them (Skogan and Maxfield, 1981). Such passive life patterns among neighborhood residents further deteriorate the community by decreasing the liveliness and integration (Kelling and Coles, 1996).

Fear influences one's freedom to move from place to place. Fear limits the activities individuals engage in, and intensifies activities they feel are necessary to ensure the safety of themselves and their loved ones

(Hale, 1996; Warr, 1995, 2000). Fear can destroy the positive sense of community; it hardens attitudes towards street criminals, leading to a stigmatization of the poor and those typically different than the norm. Fear has also been found to have detrimental psychological effects on people (Hale, 1996).

Until recently, the study of the fear of crime, and the subsequent discussions of the causes, has been limited to adults (Hale, 1996). There has been an effort to expand fear of crime studies to include the adolescent population, and the initial work suggests that adolescent and adult fear of crime share many similar predictors. There are, however, some differences as to which factors contribute to fear of crime. If adolescents accurately perceive themselves at higher risk of criminal victimization, it is possible that they may be more fearful of crime than their adult counterparts (Ferraro, 1995; Parker, 1988). In this research I will go beyond the traditional analysis of crime as a function of social structure and demographics and instead examine the relationship of social structure to fear of crime. The analysis will also attempt to better understand the relative importance of, as well as interaction between,

neighborhood-level and individual-level predictors of fear of crime.

Disorder, including incivilities or violations of norms governing neighborhood behavior (Bursik and Grasmick, 1993; Skogan 1992), manifests itself in visual cues. Perceptions of disorder stem from two types of visual cues: those that represent social incivilities and those that represent physical incivilities. Each type conveys the degree of disorder in a neighborhood in different ways. Sampson and Raudenbusch (1999, p. 610) define social disorder as "behavior usually involving strangers and considered threatening, such as verbal harassment on the street, open solicitations for prostitution, public intoxication, and rowdy groups of young males in public." Social disorder is generally the more severe type of disorder; its presence conjures fear in residents and eventually leads to community withdrawal (Bursik and Grasmick, 1993; Sampson and Raudenbush, 1999; Skogan, 1992; Taylor and Covington, 1993; Wilson and Kelling, 1982). On the other hand, physical disorder describes the deterioration of urban landscapes, including graffiti on buildings, abandoned

cars, broken windows, and garbage in the streets (Sampson and Raudenbush, 1999).

One must also consider these phenomena by examining the relationship of these variables to certain demographic characteristics of the respondents. The primary demographic characteristics for this study will be the respondent's family structure and gender. Family structure is defined as living in a biological, two-parent household vs. all other family forms. Family structure is used to determine if the level of fear in children is more prevalent when one parent is present in the home compared to both parents. For example, W.I. Thomas (1927) emphasized the role of "broken homes" as a pathway to fear. A breakdown in the family – the main socializing unit – may lead to inadequate socializing or bonding which may result in isolation and fear of crime. Nye (1985) argued that family structure affects crime indirectly, via a loss of direct parental control (supervision), but also by decreased parent-child attachment. In addition to the role of family structure as an independent predictor of fear of crime, this research will investigate whether family structure moderates the effects of neighborhood-level predictors of fear of crime.

Almost every survey of fear of crime finds that females report being more fearful of crime than males. It is gendered notions of vulnerability that motivate the bulk of fear of crime research as related to females. Consistent with previous research, I expect to find that females report higher levels of fear of crime, but I am also interested in whether the interaction between family structure and neighborhood characteristics differs by gender. The presence of a second parent, particularly a father, may moderate the impact that neighborhood cues have on fear of crime more powerfully for girls than for boys.

Before these variables can be examined, however, a review of the past history of social disorganization theory as well as past research regarding the fear of crime is necessary. The remainder of the dissertation is organized into four chapters. Chapter two focuses on the literature regarding perceptions of fear of crime and in addition to individual-level predictors of crime, how certain neighborhood level characteristics of disorder and disadvantage influence fear of crime and perceptions of safety. In chapters three and four I discuss the theoretical model, the data and methods used, and the results of the quantitative analysis. The

data provide a picture of individual perception of fear of crime within 80 neighborhood clusters throughout Chicago, Illinois. Using Hierarchical Linear Modeling, I will use individual levels of fear of crime in the neighborhood, on the way to and from school as well as while in school, and feelings of safety within the neighborhood. I control for typical demographic variables such as gender, socio-economic status, and race and include a moderating measure for family structure. In the final chapter, the results of this research are discussed.

CHAPTER 2 - LITERATURE REVIEW

Since the late 1960's, criminologist and other social science researchers have sought to define and conceptualize the construct of fear of crime. The following section of the literature review will examine the fear of crime literature, including an overview of the study of fear of crime and underlying causes of fear of crime. It will also provide a discussion of both environmental cues and social cues as concepts related to fear of crime.

The Fear of Crime

According to the United States Office of Justice Programs, there were 21 million violent and property crimes committed in the United States for the year 2008. Since the 1960's, fear of crime has consistently been a noticeable social problem in the United States. While there has been a decrease in actual crimes since the 1990's, some believe fear of crime remains a serious problem for many individuals (Adams and Serpe, 2000).

Many scholars acknowledge that fear of crime is primarily a problem that has an enormous impact upon urban unease (Garofalo and Laub, 1978; Hale 1996). In

the course of investigating causes of fear of crime, scholars have observed some unexpected patterns. Taylor and Hale (1986) noted three major inconsistencies: young males are the most victimized by crime but report the least fear; elderly females are victimized the least but indicate they are the most fearful; and crime patterns do not spatially match community fear patterns (i.e., the residents in high crime communities do not report higher levels of fear than those who live in lower crime communities). Scholarly efforts to build a sound theoretical model are motivated by a desire to answer these unexpected patterns of fear as well as the general recognition of fear as a social problem (Hwang, 2006). Some have attempted to answer these inconsistencies based on the standard definition and measure of fear, while others have focused on developing theory based models. For example, the victimization model, the disorder model, the community concern/control model, and the community context model (DuBow, McCabe, and Kaplan, 1979; Hale, 1996; Lane and Meeker, 2000; Taylor and Hale, 1986). These models recognize direct and indirect victimization; perceptions of disorder; and dimensions within the neighborhood formal and informal social control,

community environment, and individual characteristics as factors predicting fear of crime. Although the victimization model as well as the disorder model has been tested frequently, very little attention has been given to the community context and community concern approach. These models have been tested independently; little research exists to investigate the effect of these models in a comprehensive causal frame (Hwang, 2006).

Despite decades of research and debate, researchers have yet to settle on a definition of fear of crime. Over the years, "fear" has been equated with a variety of emotional states, attitudes, or perceptions including mistrust of others, anxiety, perceived risk, fear of strangers, or concerns about deteriorating neighborhoods or declining national morality (Warr, 2000). Much of the confusion over the meaning of fear seems to arise from a failure to recognize elementary distinctions between perception, cognition, and emotion. Warr defines fear of crime as, "an emotion, a feeling of alarm or dread caused by an awareness or expectation of danger. This affective state is ordinarily (though not invariably) associated with certain physiological changes, including increased

heart rate, rapid breathing, sweating, decreased salivation, and increased galvanic skin response" (2000: 453-454).

Some researchers have sought to refine the definition. Keane (1992) argues that fear of crime has two dimensions: formless fear and concrete fear. Formless fear is a generalized feeling of vulnerability or perception about the safety of a respondent's neighborhood. This type of fear is typically measured by asking the respondents, "How safe do you feel walking alone in your neighborhood at night?" Keane (1992) states that this type of fear may reflect a perception that in certain circumstances, conditions of the neighborhood are aversive. Conversely, measures of concrete fear attempt to tap respondents' perceived risk and/or worry of victimization (Keane, 1992). This type of fear is typically measured by asking respondent's to indicate how likely they feel they are to become a victim of a crime in the next year (for example, "How much do you worry about someone sexually assaulting you?").

Most of the survey research done in the area of fear of crime relies on what Pantazis (2000) calls the "global measure of fear," or the formless fear

question. Fear of crime is typically measured by asking: "Is there any area right around here, that is, within a mile, where you would be afraid to walk alone at night?" (Forde, 1993; Haynie, 1998; Roberts, 2001; Taylor 1998; Warr, 1995). This measure is criticized as being too hypothetical, limited to nighttime, not mentioning crime, and only crudely estimating intensity (Ferraro and LeGrange, 1998; Warr, 2000). It is also criticized for expecting respondent's to define what "safe" means, and what constitutes a neighborhood (Christian, 2001).

Researchers identify other conceptual concerns with measuring fear of crime. For example Farrall, Bannister, Ditton and Gilchrist (1997) critique the use of the survey method, because it converts a social process into a series of quantifiable events which do not reflect the experiences or feelings of those involved. They argue that surveys are, "static and often reduce the experience to a decontextualized snapshot where ongoing experiences and strength are rarely captured" (Farrall et al., 1997: 660).

The emotional reaction, fear of crime, is informed by both actual victimization experiences and vicarious experiences. The former is direct and associated with

some type of loss of property, physical injury, or psychological trauma (Gomme, 1988). Vicarious experiences, on the other hand, are more indirect and involve a process of gathering information from an outside source, such as family, friends, and the media. Both types of experiences can impact how people feel about crime and their fear of crime.

The types of fear of crime associated with both actual and vicarious experiences fall under two general categories, actual fear and anticipated fear (Garofalo, 1981). Actual fear is triggered by some type of cue in the environment and occurs in real time, such as being harassed by a stranger. An expectation of a criminal act happening generates anticipated fear. This type of fear may be the result of past experiences and may occur regardless of whether or not there is an actual threat of victimization. For example, a person who was once harassed while walking alone may experience fear whenever walking alone in the same or a similar area.

While the two concepts appear related, a number of studies have produced empirical evidence that these two constructs are quite distinct and are affected by different factors (Mesch, 2000). Two researchers in particular (Ferraro and Warr) have made large

contributions in the area of perceived risk, arguing that the two factors do in fact measure different phenomena, and therefore should not be used interchangeably (Ferraro, 1995; Warr, 2000). They also concur that fear is a fundamentally different psychological experience than perceived risk. Ferraro (1995) views fear as an emotion that may be attached to a physiological reaction, while risk is a distinctly cognitive judgment. In his risk interpretation theory, he additionally proposes that perceived risk affects both how people feel (i.e., fear) and what they do (i.e., constrained behavior). He concludes that perceived risk is the most important determinant of fear.

When responding to either actual or anticipated fear of crime, people adopt various types of distinct and subtle behaviors to manage fear (Meithe, 1995). Behavioral responses to fear of crime fall into three broad categories: avoidance, protective, and collective (Gates and Rohe, 1987). Avoidance involves keeping a distance from the thing that causes fear. This might be completely avoiding or just removing one's self from a situation or away from a threatening person. Most commonly used, avoidance behaviors used to handle fear

of crime might include staying home after dark or avoiding a place during a certain time of day (Meithe, 1995). In a 2003 study, Coble, Selin and Erickson (2003) examined behaviors for both males and females in solo hiking experiences. They found women, particularly, used a number of avoidance behaviors, including avoiding potential negative encounters by careful preparation of travel routes and hiking off the trail if a stranger approached them.

People use protective behaviors away from the home to help them cope with their fears without being completely removed from a situation (Garofalo, 1981). Most generally, protective behaviors involve defending one's property and person. Actions used to guard against property crime include installing locks on doors or putting in an alarm system. Depending on the situation, personal protective behaviors vary from individual to individual (Gordon, Riger, LeBailly, and Heath, 1980; Henderson and Bialeschki, 1993; Westover, 1986; Whyte and Shaw, 1994).

People also engage in protective behaviors as a collective response to crime and fear of crime. Within communities and neighborhoods, individuals participate in formal and informal collective behaviors. Formal

collective behaviors are recognized as groups, activities, programs, and organizations coordinated to respond to crime and fear of crime. These collective behaviors would refer to what Cohen and Felson (1979) call the third element of their Routine Activities Theory, capable guardianship. The capable guardian, in most cases is not seen to be a police officer or security guard. That is because, in their view, the persons likely to prevent a crime are not police officers, who are seldom around to discover crimes in the act, but rather neighbors, friends, relatives, and bystanders or even the owner of the property targeted (Clarke & Felson 1993). The absence of the capable guardian is a crucial element to this theory. An offender must find a target in the absence of guardians. The moment that happens, a crime may occur (Cohen and Felson, 1979).

The degree of fear attached to crimes is a combination of not only the perceived risk of the offense, but the perceived seriousness of the offense as well (Warr, 2000). Earlier works of Warr (1987), however, conclude that although perception of risk is often an important predictor of fear, it is not a perfect correlation since fear also depends upon how

serious the individual perceives the offense to be and the individual's risk sensitivity. "Fear of individual offenses is a multiplicative function of the perceived risk (i.e. the subjective probability of victimization) and the perceived seriousness of offenses" (Warr 2000: 298). For strong fear to be generated, the offense must be perceived as both serious and likely to occur (Warr, 2000). Fear of crime, in a chain of factors, is linked to abandonment and deterioration of neighborhoods (Wilson and Kelling, 1982), which leads to neighborhood decline that in turn, leads to a higher crime rate (Skogan, 1986, 1990). People that retreat and hide in their home make their homes a safer place but make the streets a more dangerous place according to Moore and Trajanowicz (1988).

The informal behaviors that can help in reducing fear include self-protection factors (i.e. carrying guns or weapons). Several studies (Wilcox, May and Roberts, 2006; Wilcox, 1999; Noaks and Noaks, 1999; Duncan, 1996) report higher levels of concealed firearms carrying, especially among adolescents. Adolescent weapon carrying is positively related to feelings of vulnerability within the neighborhood as well as school. This idea is consistent with the "fear

and victimization hypothesis" and "collective security hypothesis" often used in explaining adult weapon carrying (Wilcox et al., 2006). These hypotheses are tied together by a perceived personal vulnerability; those who feel vulnerable due to previous victimization, fear, or ineffective or reduced collective security are thought to be more likely to resort to self-help in the form of weapon possession (Smith and Uchida, 1988). Kingery et al. (1998) found that 3 to 5 percent of pupils missed school because of fears regarding travel to or from school or while at school. On a more disturbing note, 16 percent of girls and 21 percent of boys reported carrying a weapon to school as a means of protecting themselves (Noaks and Noaks, 2000).

The Study of Fear of Crime

In the United States, efforts to examine fear of crime are rooted in the political and social arena of the late 1960's (Furstenberg, 2000). Several governmental reports generated during this time gave national attention to fear of crime, and consequently, placed it within the political social movement to better American society. One particular report, the 1967 President's Commission on Law Enforcement and

Administration of Justice Report, issued a statement recognizing fear of crime as the most damaging effect of crime (Lee, 2001). This statement changed the way criminological researchers studied crime; instead of looking only at crime and direct victims of crime, they began to look at indirect causes and consequences of victimization (Warr, 2000).

The combination of these reports, coupled with various social events and political issues, brought about the advent of governmental victimization surveys and opinion polls. Beginning with President Johnson, and coming to full fruition with President Nixon and President Ford, victim surveys became the venue for not only studying crime but also the fear of crime (Lee, 2001). Early on, survey results indicated fear of crime was more prevalent than actual reported crime rates. Speculation about the causes of these findings rested on two explanations. First, fear of crime was seen as an irrational reaction to the rapid social changes during this time period, and second, fear of crime was the public's reaction to the actual increase in crime and violence (Furstenberg, 2000). In order to deal with questions emerging from these assumptions, self-reports from victimization surveys and opinion

polls have been one of the primary sources of data for both political and scholarly research.

Most of the research on fear of crime through the mid-1990's used data obtained from national public opinion polls, the Harris and Gallup polls in particular, as well as two large government surveys, a 1970's and 1980's supplemental questionnaire from the National Crime Survey (NCS) and the General Social Survey (GSS) (DuBow, McCabe, and Kaplan, 1979; LaGrange and Ferraro, 1987). Questions used in these polls and surveys were similar in wording and design, each seeking to tap the public's perception or concerns about crime and the fear of crime.

Many early research studies used either the data from these polls and surveys or used the same type of question format to measure fear of crime. Initially, the Gallup poll and GSS operationalized fear of crime by using a standard, single item indicator, including "how safe do you feel or would you feel being out alone in your neighborhood after dark?" and "Is there any place around here where you feel unsafe walking at night?" However, researchers within the field debated about the effectiveness of measurements used by these early surveys and polls. For example, many researchers

thought the word "safety" did not measure the emotion of fear of crime. As a result, the word safe was changed to the word afraid in order to come closer to capturing the construct of fear of crime (Hale, 1996).

There were a number of issues with these early measurement techniques. LaGrange and Ferraro (1987) discuss these issues by pointing out four specific problems with questionnaires using these items. First, the word crime is missing from the statement. Second, the word neighborhood is not geographically defined. Third, the question is double-barreled (would you and do you). Fourth, the word safe is not synonymous with the word fear. Similar criticisms have been made of all the major questionnaires used, including the NCS supplement, Gallup, and the GSS (Hale, 1996). The result from these early measurements brought many ambiguous meanings of the construct, and contributed minimal utility to the body of knowledge (Ferraro and LaGrange, 1988).

Researchers have made attempts to improve on the fear of crime measure. Warr's (2000) research has more thoroughly measured fear by looking at five offense specific indicators such as theft, fraud, assault,

sexual assault, and robbery. For example, he measures fear of sexual predation by asking respondents, "How often do you worry about someone sexually assaulting you?" His measure gives the respondent some context in which to answer the question (Warr, 2000). However, Warr's measures of individual offenses have also been criticized because he fails to make a distinction between fear and risk assessment. Christian (2001) critiques the use of multi-measure items because they often confuse (rather than clarify) the fear of crime. She indicates that multi-item measures still share the same methodological issues, specifically the failure to provide a frame of reference for the terms used, and a lack of distinction between fear and risk assessment (Christian, 2001).

The revised fear measure created by Denker and Winkel (1998) uses a three-item scale intended to capture the degree to which respondents feel tense, afraid and aggravated when thinking about the possibility of becoming a victim of crime. Norris and Kaniasty (1992) take a different approach, by looking at safety and worry. The safety measurement consists of two measures, including the traditional one asking how safe individuals felt walking alone in their

neighborhoods during the day and night. Their worry measure, on the other hand, attempts to capture respondent concerns about being personally victimized by calculating a mean of four items (e.g. "when you leave your house or apartment, how often do you think about being robbed or physically assaulted?").

Farrall et al. (1997) postulate that using a methodological triangulation such as "open" and "closed" ended question can strengthen survey research. They believe that crime surveys often ignore the meaning of events for respondents, turn processes into events, neglect that fear can be a multifaceted phenomena, poorly conceptualize the fear of crime, ignore important contextual variables, greatly influence the reported incidence of the fear of crime, and rely too heavily on respondents recall (Farrall et al., 1997).

There are five ways in which sound fear of crime measures can be developed. First, one should look beyond judgments and concerns about crime and focus more on the emotional state of fear or worry. Second, surveys should avoid general references about crime and make explicit reference to the type of crime or victimization. Third, surveys should avoid

hypothetical situations and aim towards looking at experiences in everyday life. Fourth, researchers must be extremely careful in designing survey questions to avoid double-barreled questions such as, "Do you feel safe or would you feel safe walking . . .?" Finally, because perceived risk appears to be designated as an important concept in the understanding of fear, researchers should direct more efforts to measure both perceived risk and fear instead of using them interchangeably (Ferraro, 1995).

In this study I will use the latter measure suggested by Ferraro, looking at both perceived risk and fear of crime, as well as perceptions of safety within the neighborhood. If one has a perception of high crime within the neighborhood, that could increase feelings of fear and cause withdrawal from the broader community.

Has fear of crime in United States increased or decreased over time? Overall, findings are mixed. Most studies show that fear has remained relatively constant (Forde, 1993; Roberts, 2001; Taylor, 1999; Warr, 1995). Some studies do, however, report fluctuations over time. Haynie's (1998) national longitudinal study on gender and fear of crime measures fear by the General

Social Survey (GSS) question, which asks respondents "Is there any area, right around here that is within a mile where you would be afraid to walk alone at night?" Overall, mean levels of fear of crime increase for 1973 to 1994. However, Haynie notes that this trend is not linear, as fear of crime actually decreases from 1976 until 1989, and then increases until 1994. She speculates that because the official violent crime rate also shows a steady increase from 1988 to 1992, the media's coverage of violent crime may have an influence on the public's fear.

Krannich, Berry and Greider (1989) look at fear of crime in several rural communities in the Western United States, where population sizes changed due to resource development activities. The researchers surveyed members from four different towns, using a question concerning perceptions of personal safety from crime and violence in the local community. Respondents were randomly sampled every two years, from 1982 to 1986. Results of their study show variation in the reported fear levels between the four towns. The variable that exhibits the most consistent relationship with fear of crime is the contextual factor of community change. They find that fear is highest when a

community has experienced recent rapid growth and social ties are weakened. Fear of crime is not necessarily nor exclusively linked to crime, but rather evolves from specific living conditions or neighborhood "cues" that are possible signals of danger (Carvalho and Lewis, 2003, p. 779).

Neighborhood Incivilities and Fear of Crime

Researchers hope to find another simple reason for fear of crime in studying the relationship between environmental cues and fearfulness. Their hope was that fear-inducing cues in the environment might be reduced or eliminated to bring fear of crime down to a level commensurate with official crime rates. Cues that have been studied are referred to as incivilities.

The belief that visible signs of community disorder are closely related to crime has long been a part of conventional wisdom (LeGrange, Ferraro, and Supancic, 1992). In much of the past research, scholars have shown an incredible amount of interest in these signs of community disorder, focusing especially on their relationship with fear of crime. With this interest comes a fascination with the physical environment of the cities in which they conduct their research, whether it is disorder used in policing

studies, neighborhood-effects studies, or even health studies (Sampson and Raudenbusch, 2004). Though there is not a cohesive definition of disorder, most theories of disorder begin with individuals and end with neighborhood dynamics. For example, according to the broken windows theory, minor infractions of disorder lead to a neighborhood's downward trajectory in regards to crime and environmental decay (Kelling and Coles, 1996; Wilson and Kelling, 1982). Nested in this process are individuals' feelings and behavioral reactions to disorder. As individuals perceive disorder, they take it to mean that "no one cares" about the neighborhood, they are at risk for criminal victimization, and finally, they begin to withdraw into their homes, not engaging in neighborhood life.

Disorder, known as incivilities or violations of norms governing neighborhood public behavior (Bursik and Grasmick, 1993; Skogan 1992), manifests itself in visual cues, such as graffiti, litter, drinking, rowdy youths, and inconsiderate neighbors. A more inclusive representation of disorder is an anomic social state, one in which individuals are not compelled to either follow or enforce the norms regarding community public behavior. It is important to note that what signals

disorder visually is not disorder itself; these cues are simply the visual proxy of the state disorder[1]. While most disorder researchers do not separate the social state of disorder from the visual cues, it is important to note the difference since these two aspects of disorder are depicted as one in the same. Typically, researchers specify these two aspects of disorder when objective cues within the neighborhood are used to measure disorder (Sampson and Raudenbush, 1999).

Beyond representing normative infringements, disorder can also suggest other qualities about community. Disorder is a neighborhood's representation of self since it is the gauge that residents and non-residents use to assess neighborhood quality, safety, and potential. Disorder has two types of visual cues: those that represent social and physical incivilities. Each type conveys the degree of disorder in a neighborhood in different ways.

Sampson and Raudenbusch (1999) define social disorder as "behavior usually involving strangers and

[1] This is different from social disorganization, a grander notion of social processes within a neighborhood involving changes in resident networks and informal social control.

considered threatening, such as verbal harassment on the street, open solicitations for prostitution, public intoxication, and rowdy groups of young males in public" (p. 603).

Social disorder is generally the more severe type of disorder; its presence conjures fear in residents and eventually leads to community withdrawal (Bursik and Grasmick, 1993; Sampson and Raudenbusch, 1999; Skogan, 1992; Taylor and Covington, 1993; Wilson and Kelling, 1982). On the other hand, physical disorder includes the "deterioration of urban landscapes, for example, graffiti on buildings, abandoned cars, broken windows, and garbage in the streets" (Sampson and Raudenbusch, 1999, p. 604). While not commonly specified as a continuum, certain disorder cues may signify different levels of severity. For example, litter may be an initial sign that the normative structure of a community is beginning to decay, while open prostitution may suggest neighborhood decline is well established. Sampson and Raudenbush (1999) suggest that disorder and crime emanate from the same social processes, namely collective efficacy. They further suggest that crime and disorder are along the same continuum, with disorder at the lesser end, crime on

the high end, and disorder cues for crime towards the middle.

Left uncorrected, signs of physical decay (i.e., broken windows, dilapidated buildings, graffiti, etc.) and social disorder (i.e., public drunkenness, street beggars, delinquent teenagers, etc.) invite widespread disorder, sending a message of tolerance that breeds more serious types of crime (Skogan & Roth, 2004). In turn, citizens experiencing fear often avoid the area and/or move out; buildings deteriorate, become vacant, or are occupied by the disorderly and criminal element (Skogan & Roth, 2004). Disorder is directly linked to the fear of crime.

Disorder also signals information about crime in the community. The broken windows theory suggests that the presence of disorder begins a developmental sequence to crime, that "if a window in a building is broken and is left unrepaired, all the rest of the windows will soon be broken" (Wilson and Kelling, 1982, p. 31). Disorder signals the opportunity to commit crime – no one cares enough to enact sanctions and therefore the community can be taken advantage of. While the validity of this assumption is questioned (Harcourt, 1998, 2001; Harcourt and Ludwig, 2006;

Sampson and Groves, 1989; Sampson and Raudenbusch, 1999), the notion that disorder represents the potential for criminal victimization is salient to its residents. Disorder also signals that a crime has occurred; a broken car window, drug paraphernalia, and graffiti all show signs of a crime having occurred. These cues may be more salient to individuals depending on the ecological context in which the cue appears[2] (Sampson and Raudenbusch, 2004; Taub, Taylor, and Dunham, 1984; Taylor, 1997). In many contexts, disorder can also be criminal, very similar to the context above. Loitering, panhandling, or graffiti are considered crimes throughout the United States. Furthermore, the elimination of disorder is often a goal of community policing, making certain aspects of disorder highly criminal and thus increasing individual and community levels of fear (Harcourt, 2001).

The above definition mixes components from three perspectives of disorder theory: psychological, social psychological, and neighborhood perspectives. These

[2] Research is beginning to understand that one's environment influences the disorder cues a person sees and how much they interpret them. Sampson and Raudenbusch (2004) suggest that the racial composition of one's community affects how much disorder one sees. In addition, Taub (1984) found that residents placed the interpretation of disorder in the context of neighborhood change, similar to a self-fulfilling prophecy. Positive neighborhood change facilitated a positive interpretation of disorder, while negative change (such a vacated houses and businesses) allowed residents to interpret disorder cues as proof of community decline.

perspectives generally situate this issue of disorder at different levels, specifically, at the individual level.

Due to this, each perspective deals with disorder perceptions differently. I will walk through each of these perspectives and discuss its viewpoints on perceptions in the following sections.

The psychological perspective originates from Garofalo and Laub (1978) and Wilson (1975). During the 1970's, the general population had high rates of fear of crime. However, they also had a low likelihood of being victimized. The psychological perspective is a direct response to this discrepancy (Taylor, 2001); why did people fear crime even though they were very unlikely to become victims of it? Both Garofalo and Laub (1978) and Wilson (1975) theorized this discrepancy was related to how individuals viewed their environment, mainly, that crime was not the only thing residents found troubling in their communities. Wilson (1975), who later gave us the broken windows theory, suggested that the "hey honey" hassles and the "street crazies" generated fear of crime, perhaps even more than crime itself (Taylor, 2001; Wilson, 1975). Here, the first inklings of disorder are invoked. Garofalo

and Laub (1978) suggested that individuals' fear of crime was reflective of them sensing "urban unease," not simply that crime has or may happen (Garofalo and Laub, 1978; Taylor, 2001).

These scholars were simply acknowledging the role that a decaying or socially threatening environment plays in shaping individuals' psychological states and how they come to fear crime. As Garofalo and Laub would say, "fear of crime" is not simply "fear" of "crime" (Garofalo and Laub, 1978; Taylor, 2001). Like Wilson, their focus was decidedly on the individuals and how they interpreted their immediate environment. Here, resident-to-resident differences were still important; though Garofalo and Laub's (1978) suggestion that fear of crime as a response to urban unease is the precursor to understanding fear of crime as both an individual and a neighborhood process.

Building off of the psychological perspective, the social psychological perspective combines actual neighborhood conditions and individuals' perceptions of those conditions to understand how disorder impacts a neighborhood. The social psychological perspective added to disorder theory in two major ways: (1) delineating the social processes that occur when

disorder is present in a neighborhood, and (2) outlining what meanings disorder cues hold for those that perceive them (Taylor, 2001). Disorder researchers most often invoke the social processes and meanings in their various forms elaborated in this perspective. The major scholars are Albert Hunter (1978) and James Wilson and George Kelling (1982) of the broken windows theory; however, it is important to discuss these scholars separately, as they have been extremely influential in different ways.

Hunter (1978), in a paper presented at the American Society of Criminology, detailed the link between neighborhood processes and individual perceptions. Here, neighborhood disorder bred incivilities, or disorder cues, and crime, which then generated fear of crime within individuals. Additionally, there is a recursive relationship between crime and incivilities (Hunter, 1978). His conception of disorder enhances the psychological perspective in two major ways. Hunter (1978) is the first to describe what meanings residents attach to disorder. He suggests that the meanings individuals attach to disorder come in two forms. First, local neighborhood institutions, such as block clubs and citizen groups, cannot manage

the neighborhood and solve its problems. Second, larger public services, such as those outside the neighborhood, are either unable or unwilling to offer services to the community. In total, disorder cues mean that neither internal nor external actors can assist the neighborhood in ameliorating its problems (Hunter, 1978). These meanings are attached to both physical and social cues. Second, he describes neighborhood disorder as the cause of crime and disorder cues. Hunter is the first to conceptualize disorder as not just an environmental occurrence, but also a larger neighborhood phenomenon. Unfortunately, Hunter does not specify what neighborhood disorder is: "it is not clear, however, if by disorder he specifically means social disorganization, the inability of a community to regulate itself and work toward common goals, or the community characteristics are more associated with high offense or high offender rates" (Taylor, 2001, p. 97). This problem is not solely exclusive to Hunter; a precise definition of neighborhood disorder has yet to be found and agreed upon by its researchers.

Also included in this perspective is Wilson and Kelling's (1982) broken windows theory. The broken windows theory brought disorder into the forefront of

criminological theory and policy, with few theories being more influential (Duneier, 1999; Harcourt, 2001; Taylor, 2001). The broken windows theory offers a simple, common sense explanation for how crime is generated within neighborhoods, and also offers a simple solution (Wilson and Kelling, 1982). It suggests that the presence of disorder begins as a developmental sequence leading to crime, and that "if a window in a house or building is broken and left unrepaired, the remaining windows will soon be broken" (Wilson and Kelling, 1982, p. 31). To residents as well as outsiders, the presence of disorder suggests that if crime occurs, no one in the community will care or assist if needed. At this stage, individuals will lessen their time outside, thereby lessening the probability of being a victim, thus reducing fear. Residents confine themselves to their homes, not willing to be a part of the community due to fear for personal safety (Bursik and Grasmick, 1993; Covington and Taylor, 1991; LeGrange, Ferraro, and Supancic, 1992; Liska, Lawrence and Sanchirico, 1982; Sampson and Raudenbush, 1999, 2004; Taylor, 2001; Wilson and Kelling, 1982). The result is a neighborhood where no one will defend his or her community or neighbors – the

ultimate facilitator of crime (Wilson and Kelling, 1982).

Disorder signals the opportunity to commit crime – no one within the community cares enough to enact sanctions and therefore the community is prone to be taken advantage of. Neighborhoods with noticeable disorder become hot spots – inviting crime that not only takes advantage of the community but also eventually leads to more serious crime (Skogan, 1992; Wilson and Kelling, 1982). Unique to this perspective is the temporal sequence which runs disorder cues to individuals, and finally to crime and neighborhood outcomes. Like Hunter, they suggest that disorder cues carry specific meanings, such as no one cares about the community, will call the police, or will come to your aid if needed (Wilson and Kelling, 1982). However, the temporal process of the broken windows theory is certainly debated; there is little evidence to show that disorder actually causes crime (Harcourt, 2001; Harcourt and Ludwig, 2006; Rosenfeld, Fornango and Rengifo, 2007). However, the notion that disorder represents the potential for criminal victimization is certainly relevant to residents: "fear of crime can be seen as a first step in a positive feedback loop

because it results in residents adopting avoidance behaviors that contribute to the breakdown of informal social control" (Doran and Less, 2005). In general, the only non-contentious elements of the broken windows theory are related to the meanings that subsequently impact individuals' behaviors and informal social control.

The suggestion by both Hunter (1978) and Wilson and Kelling (1982) that disorder causes crime are highly contested. Currently, the premise has only been verified by robbery rates (Skogan, 1990), and is also highly contested (Harcourt, 2001). Some urban researchers question the empirical assumptions of the social psychological perspective, specifically the broken windows theory, by suggesting disorder does cause crime, but disorder and crime are caused by the same social processes (Sampson and Raudenbush, 1999). Collective efficacy, or the ability of a community to act on behalf of the common good, is an integral process in informal social control (Sampson and Raudenbush, 1999, 1997). It allows for individuals (guardians) in the neighborhood to intervene in processes of social disorder, such as loitering, delinquency, and other types of suspicious behavior

(Sampson and Raudenbush, 1999, 1997). While the causal relationship between disorder and crime has little empirical support (Harcourt, 1998, 2001; Harcourt and Ludwig, 2006; Sampson and Groves, 1989; Sampson and Raudenbush, 1999), it is important to remember the notion that disorder represents the potential for criminal victimization and is therefore relevant to the community and its residents. It is here where disorder perceptions are linked to informal social control: "fear of crime can be seen as a first step in a positive feedback loop because it results in residents adopting avoidance behaviors that contribute to the breakdown of informal social control" (Doran and Lees, 2005, p. 7). Fear of crime arises partially from disorder but also from a changing ecological context, such as shifts in minority composition or youth population (Taylor, 1997).

Wesley Skogan was the first scholar to look at disorder exclusively within the neighborhood level, although he utilizes the same meanings of disorder the social psychological scholars employ. Skogan (1992) defines disorder as "The inability of communities to mobilize resources to deal with urban woes" (p.). Skogan (1992) theorizes that there are two causes of

disorder – social disorganization within the neighborhood, and larger urban dynamics working on the neighborhood (Taylor, 2001). Like the broken windows theory, Skogan suggests that because disorder undermines informal social control, it can cause crime.

Additionally, Skogan (1992) reinforces the distinction between physical and social disorder cues, though unlike previous researchers, he suggests that the two types of cues carry different meanings (Piquero, 1999). First, physical disorder cues convey to residents environmental decay and the inability or unwillingness of local and citywide organizations to intervene on the neighborhoods' behalf. On the other hand, social disorder cues are threatening and convey to residents issues of safety, namely, fear of crime. Here, social disorder consists of threatening individuals – teens hanging out, panhandlers that continuously ask and don't understand "no," or street corner drug deals. When individuals perceive these cues, they fear for their safety but do not necessarily read into these cues that the neighborhood cannot control its problems. Even though these cues may hold different meaning to the residents, Skogan (1992) still puts forth a cohesive definition of disorder.

Throughout the 1900's researchers began examining crime and its relation to the environment or "social organization" and they developed ecological models that explain their findings that delinquency was related to areas (or places) that were witnessing decay and physical deterioration. These areas were closer to the central city (Shaw and McKay, 1942). White (1932), examining offender rates, found that the opportunity for crime was related to community structure and the community's location within a larger community. These and other studies (Burgess, 1925; Thrasher, 1927; Lander, 1954; Bordua, 1958; Schmid, 1960; and Chilton, 1964) provided the basis for understanding how crime is related to the environment – physical and social. Shaw and McKay did not expressly include the ecological dynamics that distribute criminal opportunities across space in their model of social disorganization (Bursik and Grasmick, 1993), but their ecological research helped further the discussion that certain places within the community have features that come together to create an opportunity for crime.

Contemporary proponents of social disorganization theory (Bursik and Grasmick, 1993; Morenoff and Sampson, 1997; Sampson, Raudenbush, and Earls, 1997;

Sampson and Raudenbush, 1999) draw on the works of Albert Hunter (1985) and his three-level approach to local community social control, which includes levels or aspects of control: the "private" level, the "parochial" level, and the "public" level. These levels, or processes, help illuminate the complex layering of different community dimensions, all of which have an impact on social ties and the development of informal social controls across neighborhoods. The private level represents the social support and mutual esteem derived from interpersonal relationships among residents; the parochial level represents the role of the broad interpersonal networks that are created through the interlocking of local institutions, such as stores, schools, churches, and voluntary organizations; and the public level focuses on external resources and the ability of a neighborhood to influence community and government agencies in the allocation of resources to the neighborhoods.

The interplay of these three levels is a dynamic process that is differentially realized across neighborhoods (Sampson and Raudenbush, 1999). The willingness of residents to act together or cohesively for the common good of the residents and the

neighborhood becomes a key feature of social disorganization termed "collective efficacy." Collective efficacy links the neighborhood cohesion that fosters mutual trust with the developed beliefs and common expectations among residents for intervening to support informal social controls (Sampson and Raudenbush, 1999, 612-613). Neighborhood structural processes (e.g. residential stability, economic advantage) and collective efficacy act together to form a type of guardianship similar to the guardianship construct in routine activities theory (Cohen and Felson, 1979; Felson, 1987; Brantingham and Brantingham, 1995).

Ironically, Skogan (1992) begins the debate regarding within-neighborhood heterogeneity of perceptions. He asserts that while between-neighborhood differences in disorder perceptions are commonplace, there is considerable within neighborhood homogeneity of disorder perceptions. Taylor (2001) challenges this assertion by showing that individuals who fear more crime also perceive more incivilities – this difference is "between neighbors, not a difference between neighborhoods" (Taylor, 2001, p. 376).

Fear and Lack of Guardianship within the Neighborhood

However incivilities are perceived, they have shown a consistent and positive relationship to fear of crime. Warr (1990) conceptually organized the findings in this area of research according to Ervin Goffman's wrings on human fearfulness (1971). This theoretical structure continues to accurately represent the research generated since the time of Warr's article. In Goffman's essay "Relations in the Public" (1971), he described common safety and vigilant behaviors engaged in both animals and humans that fall into three general categories. First, he noted that individuals aspire to master their environments. Once this is accomplished, they are able to direct energy to activities other than vigilance and are cued to self-protect only when they move out of familiar contexts or note changes within a previously mastered environment. Such variations immediately represent danger until they are further examined. Warr related this finding to a long line of research in which novel stimuli have shown to evoke fear in individuals (e.g. strangers within the neighborhood, LeGrange, Ferraro and Supancic, 1992; litter and graffiti, Box, Hale and Andrews, 1988; abandoned buildings and vandalism, Lewis and Maxfield,

1980; Lewis and Salem, 1986). Taylor and Covington (1993) studied the effects of rapid neighborhood change/social disorganization on fear of crime. Their results, consistent with Goffman's theory, indicated that neighborhoods in which residents experienced a rapid and high rate of change in the youth and racial population composition over the previous decade showed higher rates of fear of crime. A closer look at race and fear of crime will be discussed later in this paper.

A second trigger for vigilance, according to Goffman, is the presence of obstacles that block an individual's view of their immediate surroundings. Warr identified "darkness" as the ultimate obstacle to an unobstructed view of potential dangers. Although other obstacles (e.g. vegetation, building and public space design, etc) have been identified, none has been observed to demonstrate such a powerful effect. Warr's (1990) findings indicated that darkness reliably increased fearfulness for all people, and when asked about waiting alone or walking through a neighborhood in the dark, he found that darkness and being alone were the two most frightening cues for young individuals. Darkness was by far the most fear-invoking

cue and interacted with both novel situations (e.g. abandoned houses, panhandlers, and rowdy youth). Being alone also increased the level of fear experienced by individuals.

Finally, Goffman identified the presence of unfamiliar others as inherently dangerous and fearful, given the limited knowledge that we have of their intentions or motivations. Warr (1990, 1987, 1994; Warr and Stafford, 1983) identified a need to examine this issue with greater complexity. His study indicated that the presence of others (bystanders) in an innocuous situation was a comfort to individuals across many situations. However, in other research, the presence of the unknown other could actually be fear inducing. For instance, Rohe and Burby (1988) found that signs of social incivility such as the presence of gangs, drug users, and panhandlers, were more predictive of fear of crime than were the physical incivilities measured. Others have found significant correlations between fear of crime, lack of guardianship, and teenagers on street corners, noisy parties, prostitutes (Box et al., 1988), unsupervised youths and strangers mingling within the neighborhood (LeGrange, Ferraro, and Supancic, 1992). In exploring

further the cues that cause individuals to be fearful of "others", Warr (1990) found that young males evoke a stronger fear response across different situations and for all subjects, but most particularly for women. I will discuss differences between gender and fear later in this paper. Garofalo discusses the importance of perceptions about crime and the behavioral reactions or adaptive behavior by individuals in different circumstances (Balkin, 1979; Cook, 1985; Garofalo, 1987). The question becomes one of, does the presence of unfamiliar others, routine activities, and the lack of guardians increase the probability of crime and fear of crime?

Cohen and Felson (1979) developed a model of criminal behavior known as routine activities. Routine activities refers to what individuals do during the course of a day in terms of going to work, being at home, heading out to the shops, and so forth. These authors looked at the interaction of targets, potential offenders, and control agents as producing the crime event. They cited the growth in the number of automobiles and popular electronics as affecting crime rates, because they make attractive targets, are portable, easily stolen, and sold or traded for drugs

without difficulty.

Routine activities theory focuses on criminal events and ignores the importance of criminal motivations in behavior. As the principle proponents of the theory, Cohen and Felson (1979) did not deny the existence of criminal inclinations, but took them as a given, thereby virtually dismissing what was central to most contemporary criminology at the time. This is one factor that set routine activities theory apart from other criminological theories of the 1960s and 1970s. It is primarily concerned with criminal events instead of socioeconomic issues or racial motivations for an attack (Clarke and Felson, 1993).

Routine activities theory assumes that, for a crime to occur, there have to be three minimal elements: a motivated offender, a suitable target, and the absence of capable guardians (Clarke and Felson, 1993; Cohen and Felson, 1979). A likely offender is anyone who for any reason might commit a crime. A suitable target of crime is any person or object likely to be taken or attacked by the offender. The word "target" was selected to avoid the moral implications of the word "victim," and to treat persons and property exactly the same as objects with a position in time and space. The

third minimal element, the capable guardian, in most cases is not seen to be a policeman or security guard. That is because, in their view, the persons most likely to prevent a crime are not policemen who are seldom around to discover crimes in the act, but rather neighbors, friends, relatives, and bystanders or even the owner of the property targeted (Clarke and Felson, 1993). The absence of the capable guardian is a crucial element to this theory. An offender must find a target in the absence of guardians. The moment that happens, a crime may occur (Cohen and Felson, 1979).

The aspect of guardianship is crucial to understanding the routine activity framework (Felson, 1986, 1987). Guardians are classified as intimate handlers, guardians, or place managers. Intimate handlers have a direct and personal influence over offenders. Offenders will not commit crimes in the presence of intimate handles such as teachers, employers, or parents. The effectiveness of guardianship is determined by who is available to guard and how effective they are at doing so. For example, Felson (1993) described social indicators in the Census, which are reflective of lowered levels of supervision and involvement. Census information

provided measures of who can watch: such as family members, number of people who use private transportation, size of school grounds or membership in clubs and groups. An underlying assumption was that the people who are present would actually be effective, or become involved at all. For this paper, I will use parents as guardians, and whether the individual resides in the home with both parents.

Social support and social control are used as instances of parental supervision/involvement in the general life situations of adolescents. The role of parents as guardians against victimization does not lie in their physical characteristics or their physical presence alone, but in the relationship that exists between themselves and their children (Bjarnason, Sigurdardottir, and Thorlindsson, 1999). Parents under certain conditions can regulate exposure to potentially endless supply of motivated offenders. First, an emotional bond between parent and child is the precursor of parental morale and functional authority. Without this bond, children will neither confide in their parents, nor will they take parental advice and guidance seriously. Second, parents may only be able to provide guidance if they become aware of specific

dangers facing their children. This guidance is only possible with monitoring of situations, and is dependent on the emotional bond, since children have a greater sense of sneakiness than the parents monitoring capabilities. Finally, parents can attempt to prevent children from deviant acts by setting clear rules of conduct, although prior research suggests that parental rule setting is ineffective in the absence of family integration (Thorlindsson and Bjarnason, 1998).

Individual Correlates and Fear of Crime

A substantial amount of attention in the fear of crime literature is afforded to the influence of one's vulnerability on feelings of fear. Existing research uses individual demographic indicators such as gender, race, and family structure to predict the influence of vulnerability on fear of crime (Schafer et al., 2006; Taylor and Hale, 1986). Research indicates that personal vulnerability facilitates fear of crime (Goodey, 1997; Skogan and Maxfield, 1981) and that persons may exhibit vulnerability primarily as a result of their social position (Garofalo, 1981). Accordingly, mainstream research suggests that individuals who feel able to protect themselves through physical, social, and/or economic resistance may report lower levels of

fear compared with those who feel they lack the capacity for self-protection (Killias and Clerici, 2000). Another area that has often been examined in the literature on fear of crime and use of public space is age. Young people are more at risk from and more affected by victimization than older people. For this research, age will be used as a control variable but I do not expect it to be a significant predictor of fear of crime due to the limited age-range of the sample.

Gender

Higher levels of fear of crime for females have been the most consistent finding in the fear of crime research (Madriz, 1997; Stanko, 1990). For example, Robert's (2001) study notes that women are much more likely than men to report being fearful (41% vs. 12%). Scott's (2003) analysis of the Violence Against Women's Survey indicates that 61% of women report being somewhat or very fearful walking around their neighborhood at night. Two-fifths indicate that they are somewhat or very fearful while home at night.

Female fear of crime, as a paradox, has been examined by the inconsistencies between reported rates of actual crime to reported rates of fear of crime, as well as the inconsistencies between locations females

fear crime the most to the locations where reported victimization most frequently occurs.

Women's reports of fear of crime consistently are higher that their actual reported victimizations. An attempt to explain this in the literature has focused on three relevant causes: Female socialization, vulnerability, and rape. Gendered notions of vulnerability motivate the bulk of fear of crime research as related to female fear of crime. For example, females are socialized to portray passivity and behave in a delicate and "ladylike" way, ultimately reiterating and reinforcing their inability to protect themselves from harm without the help of strong and virile males (Kilmartin, 2000). As such, empirical literature on female fear of crime centers around the influence of vulnerability, specifically related to sexual assault and fear of men (e.g., Stanko 1992, 1995) and the effect of prior victimization on feelings of fear (Young, 1992).

The sexual vulnerability of females and the documented threat of sexual victimization increase fear (Gordon and Riger, 1989) and thus serve as mechanisms of social control (Brownmiller, 1975; Koss et al., 1994; Madriz, 1997). For example, research has

established that females are socialized and taught to fear sexual assault, strangers, and potentially dangerous situations or unknown settings (Brownmiller, 1975; Koss et al., 1994; Schwartz and DeKeseredy, 1997). As a result, freedoms are curtailed, and relevant decision-making almost always reflects a concern for safety often at the cost of independence (Madriz, 1997).

Race and Ethnicity and Socio-Economic Status

The scholar Jeffery Reiman (1979), in his work *The Rich Get Richer and the Poor Get Prison*, contends that the mere presence of black males has often been correlated with both crime and fear of crime. Similarly, James Q. Wilson (1992) posits that fear and racism are perhaps indistinguishable. Senator Bill Badley (1992) is quoted as stating, "Fear of black crime covers the streets like a sheet of ice" (quoted in Skogan, 1995, p. 60). Using this rationale, one may predict that the level of fear among whites may be a complex interaction between actual fears of crime, coupled with a fear of, or racist attitudes toward, non-whites. Race and ethnic heterogeneity of neighborhoods, or the perception of heterogeneity, may be more important in explaining fear than crime itself.

Keith Parker (1987) analyzed data from a mail survey of 1,835 residents of Mississippi to examine the differences in perceptions of fear of crime between blacks and whites. The author utilized an alternative measure of fear of crime by asking respondents to address a series of statements about how much they worry about personal and property crimes and about the safety of their loved ones. In addition, the author included a series of statements regarding their level of agreement with being unsafe while at home, becoming a victim in their community, and whether crime or fear of crime has been a problem for them in the past year.

Results of the analysis indicated that race was secondary to age in determining fear of crime. For blacks, sex, age, and education were significant predictors of fear. African American females and those who are younger and less educated expressed the highest levels of fear. For whites, age, living arrangements and community size were significant predictors of fear. Parker concluded that race was a determinant of fear, in that blacks were more fearful than whites.

In two separate studies conducted by Jeanette Covington and Ralph B. Taylor, the effects of fear of crime in urban residential neighborhoods were

investigated. The first study conducted (1991) measured the fear of crime, the neighborhoods' racial mix and community integration. The results found that race was significant at both the individual and aggregate levels. Respondents in mostly black neighborhoods were more fearful and respondents who were different racially, either white or black, from their neighborhoods exhibit more fear. In the second study (1993) the authors assess the impact of community structural changes upon fear of crime. Measures included fear of crime, minority and youth composition of neighborhood and changes in socioeconomic status of neighborhood residents. First, residents in neighborhoods with a greater proportion of African Americans had higher levels of daytime fear of crime. Second, residents in neighborhoods with a higher proportion of African Americans expressed concerns about safety at night. And the awareness of unsupervised youth predicted daytime fear of crime and demonstrated more concern about safety at night.

When looking at socio-economic status as a predictor of levels of fear, those who live in a disadvantaged area are more vulnerable because of the everyday exposure to crime (Pantazis, 2000; Skogan &

Maxfield, 1981), and those individuals that lack the financial resources to protect themselves or recover properties tend to be more fearful of crime (Hale, 1996). Both minority statuses as well as low income are often used as indicators of social vulnerability (Pantazis, 2000; Skogan & Maxfield, 1981; Taylor & Hale, 1996). Much research has supported the notion that minorities and those of lower socio-economic status are considered more socially vulnerable because of the disadvantaged contexts and limited resources, either to improve their environments or to handle the consequences of crime (Box et al., 1988; Garofalo, 1981; Gomme, 1986; Hale, 1996; Skogan 1986; Taylor & Hale, 1986). The poor and black are far more likely to fear crime in their neighborhoods than their counterparts (Erskine, 1974). All else being equal, people with higher income tended to be less anxious for their safety (Grabosky, 1995). In an early study, Biderman, Johnson, McIntyre, and Weir (1967) found that those with the higher income status showed lower anxiety of crime. They concluded that people with sufficient financial resources are better equipped to protect themselves from harm and to afford to live in safer neighborhoods (Hwang, 2006).

Family Structure

Until recently, the study of fear of crime and the subsequent discussions of the causes has been limited to adults (Hale, 1996). There has been an effort to expand fear of crime studies to include the adolescent population. The initial work suggests that adolescent and adult fear of crime share many similar predictors. There are, however, some differences as to which factors contribute to fear of crime. If adolescents accurately perceive themselves at higher risk of criminal victimization, it is possible that they may be more fearful of crime that their adult counterparts (Ferraro, 1995; Parker, 1988). Many studies have been conducted to examine the variables that determine fear of crime among adults (for a review, see Bilsky, Pfieffer, & Wetzels, 1993; Ditton & Farrall, 2000; Hale, 1996), but the feelings of fear as a result of insecurity in children and youth have been practically ignored. There have been a small number of articles that focus on children's fear of crime; however these articles focus on a specific or limited population or they may lack a thorough approach to fear of crime (DeGroof, 2007). According to the symbolic paradigm,

feelings of fear and insecurity are partially transmitted from the parents to their children. Not only through intergenerational transmission of feelings and fear, but as a by-product of parental features such as education and parenting styles.

May et al. (2002) assessed the relationship between adolescent fear of crime and parental attachment. The starting points for their research were attachment theory and social control theory – both criminological theories concerned with juvenile delinquency. Both theories assert that adolescents' adjustment, emotional wellbeing, and social behaviors are heavily influenced by the type and quality of relationship with their parents. Parental attachment, bonding, and involvement are considered beneficial in the child's development and reduction of the willingness to engage in delinquency. On the basis of these theories and tests of them, May et al. (2002) assumed that parental attachment should have a similar impact on reducing fear of crime. Adolescents who are strongly attached to their parents will view themselves as being guarded and insulated from potential victimization of crime and have a lesser fear of crime than adolescents with little or no attachment to

parents. May et al. (2002) find that males who are more attached to their parents are less fearful of criminal victimization, have a higher perceptions of safety, and lower perceptions of risk compared to their counterparts with weaker parental attachment.

Ecological theories have typically been concerned with the impact of social control on fear, and thus have emphasized differences in the capacity of communities to control disorder. It is purported that a high fraction of single-parent families in a community attenuate informal social controls that serve to restrain threatening behaviors and disorder, thus reducing some elements of fear. Though the precise mechanisms by which parental absence contributes to an increased level of fear has not been tested, systemic social disorganization theorists argue that the control capacity of areas with high family disorganization is weakened via decreased supervision; simply put, there are fewer guardians due to absent parents.

Two-parent households provide increased supervision over their own children and property (Cohen and Felson, 1979) but, perhaps more importantly, the opportunity for victimization is less where two-parent families are the norm due to the

supervision/involvement exercised over public activities of others within the community (Sampson, 1987). Supervision/involvement includes acts such as taking note of and/or questioning strangers, supervising youth activities and peer groups, watching over one another's property, and intervening in local disturbances (Messner and Sampson, 19991). More importantly than intervening in disorderly acts, guardians serve a preventive function by which they are better able to control the activities of peer groups (e.g., "hanging out," truancy, and vandalism) that set the context for more serious acts of violence (Sampson, 1987); which in turn promote an increased level of social disorder and fear of crime.

In most single-parent families it is the father's absence that has the most profound effect on children's lack of socialization and community bonding. Shaw and McKay's reformulations and extensions of social disorganization theory have identified father absence as potent variable affecting community level variations in disorder and crime. Some scholars suggest that the relationship between father absence and fear of crime is due to a community's diminished capacity to exercise informal social controls over its residents (e.g.,

Messner and Sampson, 1991; Sampson, 1987). Where father absence is common, poor supervision of young children and decreased involvement within public areas may allow disorder to develop into aggressive acts of violence and criminal activity to flourish (Sampson, 1987), causing a overarching level of fear.

Fathers are likely to perform collective functions in addition to social control, including roles as mentors and/or protectors. Localities with predominantly female-headed households are less capable of exerting informal control due to time constraints on single mothers, who tend to have higher rates of labor force participation (Waite, 1981). Limited free time of single working mothers may hinder supervisory behavior, organizational participation, and contact with neighbors (Messner and Sampson, 1991; Sampson, 1985), 1986, 1987; Sampson and Groves, 1989) – all of which are theorized to increase neighborhood efficacy and decrease fear of crime.

Thus, the presence of resident fathers serves as an important social control function within communities by supervising public activities within the community, supplementing female authority, and intervening in possible conflicts before they get out of hand. This

"community supervision/involvement role" is socially expected of family centered men more so than women. However, aside from the absence or presence of family centered men, some localities differ in their capacities to exert informal social control. Perhaps areas that are rich in community guardians and supervisory structures (i.e., as measured by the presence of available guardians) can overcome deficits in resident fathers. Popenoe (1996) states, "Neighborhoods without fathers are neighborhoods without men able and willing to confront errant youth, chase threatening gangs, and reproach delinquent fathers" (p. 140).

Much of the previous research on the role of family structure (father absence in particular) on fear of crime focuses on issues of attachment, social control, and supervision/involvement. But how does family structure interact with the broader community context? Is the impact of neighborhood-level characteristics on fear of crime moderated by family structure? Perhaps children who live with two parents rather than one feel more "protected" in their daily lives and therefore their level of fear is not as affected by neighborhood disadvantage and disorder.

Neighborhoods, Family Structure, and Gender

As a result of gender socialization, feelings of disorder and incivility may have differing effects on fear of crime for females and males. For example, parents often treat their sons and daughters differently, holding them to separate standards in terms of freedoms and issues of independence. Male children are encouraged to seek out, investigate, and discover their surroundings with little parental concern or regard for potential danger (Kilmartin, 2000).

This process of male socialization produces a sense of self-confidence and assurance in young boys, and they are taught to welcome unknown or dangerous situations and may be more likely to throw caution to the wind. This same behavior is discouraged among girls. Parents are more inclined to protect and shelter their daughters, teaching them to fear strangers and to exercise extreme caution when faced with similar situations. Disorderly neighborhood surroundings thus may engender increased feelings of fear for females compared to their male counterparts. Females that experience a significant amount of social integration due to relational support from family and friends may

express less fear than those with little or no integration. For example, socially appropriate ideas about womanhood teach that female self-worth and value are derived from women's experience and connectedness to and relationships with others (Koss et al. 1994). These same values of interdependence and reliance on others are not taught to males as part of their socially acceptable masculine identity (Kilmartin, 2000).

Furthermore, females are socialized to be dependent on others by relying on intimates, family, and friends for protection and social support, whereas males are brought up to value self-reliance, self-sufficiency, and independence, generally limiting the appearance of needing others. Consequently, the hypothesized moderating effect of family structure on the relationship between neighborhood characteristics and fear of crime may be stronger for females than for males.

Summary

As the review of the relevant literature has illustrated, fear of crime is driven by a host of neighborhood and individual level predictors. The goal of this research is to increase our understanding of

the predictive power of these variables relative to one another, and in concert. In the following chapter I describe the data source and methodology used to explore these issues. Then, in subsequent chapters, I examine the following research questions:

1) Are neighborhood- or individual-level variables more powerful predictors of fear of crime?

2) Is the impact of neighborhood characteristics on fear of crime moderated by family structure--i.e., is the impact of neighborhood disadvantage/disorder weaker for children in 2-parent families of origin than for youths in other types of families?[3]

3) Does the moderating effect of family structure on the relationship between neighborhood characteristics and fear of crime differ by gender (i.e., will the effects be stronger for girls than for boys)?

[3] See figure 1 in Appendix A for a visual depiction of the hypothetized differences in slopes for the relationship between neighborhood disadvantage/disorder and fear of crime across categories of family structure.

CHAPTER 3 – METHODS

DATA SOURCES AND SAMPLE

The Project on Human Development in Chicago Neighborhoods (PHDCN) is an interdisciplinary study aimed at understanding the various contexts of children's psychological, social, and behavioral development (Gibson, Sullivan, Jones, & Piquero, 2010). The data consist of three waves of data collected over eight years from a sample of pre-adolescents, adolescents, and their primary caregivers in Chicago (Earls, 2002). Chicago was selected due to its stable and well-defined neighborhoods as well as its large diverse population. Data from the PHDCN are well suited to assess both individual-level and neighborhood-level effects on resident's fear of crime because: (1) the exhaustiveness of contextual measures created from these data and validated over time (Sampson et al., 1997), and (2) data have been collected on several cohorts of children at different stages of development.

Longitudinal Cohort Study

There are two components to the longitudinal cohort sampling design: selection of neighborhood clusters and dwellings for the longitudinal cohort study. For the cohort study, Chicago's 847 census tracts were combined

into 343 neighborhood clusters (NC's) that maintained a relative homogeneous neighborhood population with respect to racial/ethnic, socioeconomic, housing, and family structure characteristics (NC's averaged roughly 8,000 people) (Browning, Leventhal, & Brooks-Gunn, 2004). The following definition was given of neighborhoods: "By neighborhood we mean the area around where you live and around your house. It may include places you shop, religious or public institutions, or a local business district. It is the general are around your house where you might perform routine tasks, such as shopping, going to the park, or visiting with neighbors."

The neighborhood clusters were stratified by seven levels of racial-ethnic composition and three socioeconomic levels (low, medium, and high), and a stratified probability sample of 80 neighborhood clusters (NC's) was selected for the study. The study directors intended to elicit an equal number of NC's in each of the 21 strata that varied by racial/ethnic composition and SES (Gibson et al., 2010).

Second, the block groups were selected from each of the 80 NC's. Within each of the sampled block groups a list of dwellings were compiled and household members

were enumerated, resulting in approximately 40,000 dwellings screened. Infants, children, and adolescents were recruited to participate. Subjects within six months of the following age categories: 0, 3, 6, 9, 12, 15, 18 were selected. These age cohorts were selected because they represented major development milestones. Extensive in-home interviews and assessments were conducted with the children and their primary caregivers at two different points within a four-year time period, at two year intervals.

Wave 1 data was collected in 1995-1996 with a 75 percent (N= 6,228) response rate, Wave 2 1998-1999, with an 86 percent (N=5,338) of the original (first wave) respondents, and Wave 3 collected in 2000-2001 with a response rate of 78 percent (N=4,850) of the Wave 2 respondents.

Systematic Social Observations

The second data source used in this research is the Social Systematic Observation, which was conducted within each of the block groups. Trained observers drove a sport utility vehicle down every street within the sample of approximately 500 block groups. The original geographic unit of recorded observation was the face block: the block segment on one side of the

street (Sampson & Raudenbush, 2004). As the SUV was being driven down the street, two videographers, one on each side of the vehicle, captured social and physical activities within the face blocks. At the same time two trained observers, one on each side of the vehicle, recorded their observations in an observer log for each face block. The study was conducted in 1995 and covered all 80 of the sampled neighborhood clusters, recording data from 23,810 face blocks (both left and right sides of the street simultaneously) for a mean of 298 observations per neighborhood cluster. Detailed information on physical conditions, housing conditions, types of businesses, and negative social interactions were coded (Molnar, Miller, Azrael, & Buka, 2004).

The present study uses data from the 9, 12, and 15-year-old cohort from Wave 2 for a total of 1,915 respondents. Of all the prospective respondents, the effective sample size for these analyses is 1,311. Respondents removed from the sample included those who had missing data on variables that do not lend themselves to imputation—such as neighborhood clusters, family structure, race, or sex—as well as those with missing data on the dependent variable(s).

DEPENDENT VARIABLE

There were a number of questions asked of the respondents that attempt to tap into fear of crime, including fear of violence in or around school and feelings of safety within the respondent's neighborhood. To determine the best way to capture the dependent variable of fear of crime from the measures available in the PHDCN data set, I first conducted an exploratory Principal Components Analysis (with Varimax rotation) to determine if a single scale could be constructed from these eleven items. The rotated solution produced two factors. The factors and their loading scores are reported in Appendix B.

The first factor solution contained items relating to fear of violence within the neighborhood, and included the following questions: (1) How afraid are you that you might be hurt by violence in your neighborhood? (2) How afraid are you that you might be hurt by violence in front of you apartment building or house? (3) How afraid are you that you might be hurt by violence inside your apartment building or house? (4) How afraid are you that you might be hurt by violence at school . . . that is while in school or on school grounds (i.e., on the playground, at athletic events or extracurricular activities)? (5) How afraid are you

that you might be hurt by violence on your way to or from school? The respondents were asked to indicate their level of fear using a three point Likert scale: 1 = very afraid, 2 = a little afraid and 3 = not at all afraid. Cronbach's alpha for the three items is .796. The mean and standard deviation for the neighborhood fear scale is 8.11 and 2.71 with a range of 5 – 15. Items were recoded so that high scores reflected high levels of fear. These survey questions go beyond the original questions asked of survey participants in the 1960's Gallup Polls, however, they also are not crime specific as suggested by Warr (2000); nor are they aimed at irrational reaction to social change. The questions for this survey ask respondents to express how fearful they are in and around their neighborhood whether it is day or night.

The second factor solution contained three items that related to the respondent's level of safety felt around the neighborhood. Respondents were given several sentences and asked to respond by checking the box that best describes what they are most like. The three sentences used for this scale were: Things I can do if I try? (1) Some kids feel…they can figure out ways to do things safely in the neighborhood with their

friends, (2) Some kids feel…safe when they are alone in their neighborhood because they know how to take care of themselves, (3) Some kids feel like…they can do things or go places within a few blocks of their homes safely. The term 'some kids' refers to the respondents themselves, the questions are asking whether or not they feel they can do things safely in their neighborhood. These items employed a four-point Likert scale: 1 = very true, 2 = sort of true, 3 = sort of untrue and 4 = very untrue. Items were recoded so that high scores reflected high levels of safety. Cronbach's alpha for the three items is .621. The mean and standard deviation for the neighborhood safety scale are 6.01 and 2.33 with a range of 3 to 12.

NEIGHBORHOOD-LEVEL INDEPENDENT VARIABLES

Disorder

Based on the works of Hunter (1978) and Skogan (1990), this analysis will examine whether the measures of neighborhood incivilities included in the PHDCN data can be examined as one index or a more refined index of the two hypothesized constructs of physical and social incivilities. The three scales used were derived from the principle investigators conducting the Social Systematic Observation. These scales measure the

traditionally defined physical and social disorder, along with physical decay. Based on past literature, the groupings were left intact from the original data and each was entered into a separate factor analysis. The statistical results are presented in Appendix B. These measures allow me to assess whether the residents have a stronger fear crime due to the *neighborhood physical disorder* (e.g. graffiti, garbage on sidewalk, abandoned cars, and conditions of buildings and houses), *neighborhood social disorder* (e.g. adults hanging out/loitering, prostitution, people drinking alcohol and/or selling's drugs, of homeless/beggars) or *physical decay* (e.g. vacant houses, condition of residential units, condition of buildings, condition of recreational facilities, burned/abandoned houses, and/or burned/abandoned buildings).

Physical Disorder is measured by 6 items, taken from the videotapes and observer logs. These observations capture the presence or absence of graffiti, garbage or litter on the street or sidewalk, abandoned cars, gang graffiti, tagging graffiti, political message graffiti, or evidence of graffiti that has been painted over. All items were coded as: 0 = not present and 1 = present. The mean and standard

deviation for the physical disorder scale are 1.20 and .310, respectively, with a range of .46 to 2.17.

Neighborhood disorder refers to conditions and activities, minor and major, non-criminal and criminal – that residents perceive as signs of the breakdown in social control (Skogan & Maxfield, 1981; Taylor & Hale, 1986). Some aspects of disorder fall into criminal activity while others – such as deteriorating homes and buildings do not, in which case I refer to these as signs of physical decay. I will use a separate scale of physical decay that looks at institutional disinvestments (Sampson & Raudenbush, 2004). The physical decay scale was again devised from the videotapes and observations and defined by looking at 6 items throughout the neighborhood. These six items included: vacant houses, deteriorated houses; badly deteriorated commercial buildings; badly deteriorated recreation facilities; burned out houses; and burned out commercial buildings. The items used on the physical decay scale were coded as: 0 = not present and 1 = present. The mean and standard deviation for the physical decay scale are .054 and .075, respectively, with a range of .00 to .46.

Social Disorder was also taken from the videotapes and observer logs and is comprised of 7 items. The observations capture the presence or absence of adults loitering or congregating, prostitutes, drinking alcohol in public, selling drugs in public, adults fighting or arguing in a hostile manner, drunk and/or intoxicated people, or homeless/beggars on the block. These items were also coded as: 0 = not present and 1 = present. The mean and standard deviation for the social disorder scale are .056 and .740, respectively, and a range of .00 to .63.

Due to the nature of data collection for physical disorder/decay and social disorder, a mathematical computation was needed in order to obtain an accurate assessment for each of the variables observed within the 80 neighborhood clusters. Over 23,810 observations were recorded for the 80 NC's, which left a mean observation of 298 per neighborhood. The observer's logs were recorded at different timed intervals within a twenty-four hour period, so a single NC could possibly have 339 observations of graffiti. In this study I am only interested in the presence or absence of these variables.

For the three categories of disorder, each observation was summed to create a count variable, which indicates the number of observations for that particular variable within the particular neighborhood. The count variables were then divided by the number of observations to provide a proportion. In the proportion calculation, scores closer to 1 indicate that the variables were observed numerous times within that neighborhood. However, in order to use the scale, all proportions were summed and divided by the number of variables used to create the scale.

Disadvantaged neighborhoods lack the economic and social resources that contribute to order and social control (Ross, 2000). Disadvantaged neighborhoods have fewer resources such as good schools, parks, and community services, which show residents that mainstream society has abandoned them (LaGrange et al 1992; Robert 1998; Taylor & Hale 1986). In response, residents will often abandon conventional, orderly behavior (Ross 2000). Although many different variables have been used to create a disadvantage scale, this study will use the neighborhood level socioeconomic status and the neighborhood level ethnicity.

INDIVIDUAL-LEVEL INDEPENDENT VARIABLE

Past research has shown a positive relationship between single-parent households and an increased fear of crime (Rebellon, 2002). Therefore it is necessary to include a measure of family structure in this analysis. The respondents were asked to identify (by first name only) the person(s) that are currently living with them as well as indicate the relationship of that person, using a prescribed scale, the person's age and whether or not the person named was a male or female. The relationship scale included: 1 – Mother, 2 – Father, 3 – Stepmother, 4 – Stepfather, 5 – Mother's partner, 6 – Father's partner, 7 – Sibling, 8 – Cousin, 9 – Aunt/Uncle, 10 – Grandfather/mother, 11 – Great Grandfather/mother, 12 – Great Aunt/Uncle, 13 – Niece/Nephew, 14 – Friend, 15 – Nanny/Housekeeper, 16 – Boarder, 17 – Study Participants (SP) child, 18 – Study Participants (SP) partner, and 19 – Other.

A dummy variable was created to indicate that the respondent lived in an intact home (both mother and father) = 1; or all other living arrangements = 0. There were obviously other possible ways to code the family structure variable, but the existing literature on family form suggests strongly that two-parent families of origin produce better outcomes for children

than all other types of family structure (i.e., children living in step-parent families have outcomes much more similar to children in single-parent homes than to children in two-parent, intact homes (McLanahan & Sandefur, 1994; May et al., 2002)).

CONTROL VARIABLES

Parental Involvement/Guardianship

The capacity of parents to guard against crime and victimization relies on their presence in and around their children's lives, and the relationship parents and children share. Therefore a measure of parental involvement/guardianship is used in this study. Children need parents who are willing to spend time with them reading, playing, helping with schoolwork, or just listening about their day. Children also need parents who are willing and able to monitor their social activities outside of school, within the neighborhood (McLanahan and Sandefur, 1994). It is suspected that parental involvement/supervision is weaker in one-parent families than in two-parent families, this disadvantage is a matter of time availability: one parent has less time to spend with the children than a two-parent household where parents can share the responsibility and cooperate with each

other, leaving the unguarded child to feel less secure and more fearful. Because parental involvement/guardianship may be influenced by family form, its inclusion in the model may result in family structure being non-significant. However, because my dependent variable is a perception of fear/safety, I am interested if living with two parents gives children a sense of security that is independent of issues of guardianship.

Of the 1,311 children used for this research, 76 percent report living with their mother, the mother would be classified as the primary caregiver. The primary caregivers were asked a series of questions that pertain to the amount of time and type of activity they and their children participated in together, such as: "In the past month, about how often have you . . . " (1) Taken _____ places, (2) Done some outdoor activity with _____, (3) Included _____ in family hobbies or activities. These questions were asked to the primary caregiver about how they their children did things together. The respondents were given a Likert scale response where 1 = Less than once a month; 2 = About once a month; 3 = A few times a month; and 4 = At least a few times a week. The

following question was also posed to the primary caregiver: "Thinking about the last year, how many times have you. . .Taken or arranged for _____ to (1) go on family errands to businesses like the bank or shopping for something" Again the respondents were given a four point Likert scale response were 1 = Never; 2 = once a year; 3 = two to three times a year; and 4 = more than three times a year. The primary caregivers were instructed to fill in the child or children's name within the question. Cronbach's alpha for the four items is .596. The mean and standard deviation for the parental involvement/guardianship scale is 7.84 and .080, and a range of 4 to 16.

All items used to create scaled variables were forced into one factor and are listed along with the rotated factor matrix in Appendix B.

Gender

For many years, women were noted to have fear levels far more disproportionate to actual incidence of crime against them than did other groups (Baumer 1978; Skogan and Maxfield 1981; Hindelang 1978). In separate studies, Balkin (1979) and Stafford and Galle (1984) found support for the theory that women may experience the same level of risk as that of other groups within

the population, but respond to fear of crime by reducing their exposure to risk (going out of the house less, being careful what time of day they travel, who they are with when outside, etc). Gender was coded male = 0 and females = 1.

Age

Although it does not vary much, since all the respondents were between the ages of 9 and 15, I will also use age as a control variable.

Family Socio-Economic Status

The socio-economic status (SES) of the parents will be included in the analysis. Poor people are thought to have higher feelings of insecurity, because their social vulnerability increases the threats to which they are exposed and their helplessness with regards to these threats (Skogan and Maxfield 1981). The SES of the parents is constructed as a categorical principle component analysis scale, including the educational level of parents, their employment status, income, and whether they are currently receiving public assistance. Public assistance is defined as those receiving any form of assistance such as, TANF or AFDC within the last year. This variable was created by the initial investigators of the study and listed as a

separate variable. The mean and standard deviation for SES are 3.32 and 2.13, respectively, with a range of 0 to 7.

Race/Ethnicity

According to Skogan and Maxfield (1981), racial differences in fear of crime stem, in part, from differences in actual exposure to crime; blacks of all ages are more likely to live in high-crime neighborhoods than are whites (Ortega and Myles 1987). Respondents were asked to "Describe your race/ethnicity." Respondents were asked to select one of the six possible answers, 0 = Hispanic, 1 = Asian, 2 = Pacific Islander, 3 = Black, 4 = White, and 6 = other. Three dummy variables were created for race/ethnicity of the child. The first dummy variable includes only blacks = 1 and all other race/ethnic categories = 0; the second dummy variable was coded as Hispanic =1 and all other race/ethnic categories = 0; and finally, the third dummy variable coded those who chose "Asian" or "other" as their racial categories = 1 and everyone else = 0. Those indicating their race/ethnicity as white are used as the reference category for this study.

Analytic Approach

Hierarchical Linear Modeling (Raudenbush & Bryk, 2002) was chosen as the method of analysis for this study based on theoretical and statistical grounds. HLM is a particular regression technique that is designed to take into account the hierarchical structure of data, utilizing a multilevel approach for survey data of individuals nested within specific communities. I am interested in determining simultaneously the effect of community characteristics (disorder/disadvantage) as well as various individual demographics and attitudinal dimensions on individual fear of crime. I will also assess whether or not family structure has a moderating effect on an individual level of fear in relation to neighborhood disorder/disadvantage.

Prior to the development of multilevel estimation techniques, it was common for conventional regression methods to be used after aggregation or disaggregation of the multilevel data, handling the data as if they are single level (Goldstein & Rasbash, 1996; and Raudenbush & Bryk, 2002). In the most frequently used method, data are disaggregated to the lower level (i.e. individual level). Various community-level variables such as physical disorder, social disorder, and physical decay were assigned to each individual. That

is all observations are pooled (Raudenbush & Bryk, 2002). In this case, for example, individuals nested within the same community will share the same "scores" on the contextual variables. All individuals in a given community would have the same level of physical disorder, social disorder, and physical decay. The disaggregated or pooled data approach, however, violates the independence assumption among observations within groups and the heterogeneity of variance assumption, thus resulting in a biased estimation of variances in the contextual variables and incorrect standard errors (Green, 2000).

The HLM analysis is based on a multilevel theory to specify the direct effects of variables on each other within any one level, and to specify cross-level interaction effects between variables located at different levels (Raudenbush & Bryk, 2002). Compared to complete pooling or unspooling methods, the distinction can be made between causal effects of, for example, individual-level variables and the constraining effects of neighborhood-level variables. Therefore, one of the obvious advantages to HLM is the ability to model and test cross-level relationships by examining the interactions between group-level and individual-level

characteristics with correct estimates of standard errors (Raudenbush & Bryk, 2002; Hwang, 2006).

Chapter 4 - Findings

In this chapter, the major research findings are presented. To begin, several diagnostic procedures are introduced to help understand the respondents' individual characteristics and neighborhood situations. For this, descriptive statistics at both the individual and neighborhood levels are presented first followed by bivariate correlations. The analysis proceeds with the estimation of a series of hierarchical linear models. For the multilevel model analyses, a two-stage modeling procedure is used for each outcome: the one-way ANOVA to obtain descriptive statistics such as intraclass correlation and reliability estimates; the random coefficients model to look at the effects of individual-level predictors, and the fixed effect full model to look at the effects of both neighborhood level and individual level predictors.

Preliminary Statistics

To begin with, descriptive statistics were obtained to report sample characteristics. The subjects of this study are 1,311 male and female children ranging in age from 9 to 15 years old. Table 1 includes the general characteristics of the sample. Among the respondents, 49.5 percent were male and 50.5 percent

were females. In terms of race/ethnicity, 31 percent were black, 42 percent were Hispanic, 15 percent were white, and 12 percent indicated their ethnicity as other. For family structure, 53 percent of respondents reported living in an intact (biological mother and father) household. Scores on the family SES were equally distributed between response codes 1 through 3 (the scale ranged from 0 to 7).

The average level of neighborhood fear among the respondents was 1.61 points (mean/number of items) in the three-point scale (1 = not afraid at all, 2 = somewhat afraid, and 3 = very afraid) per item for all 5 items. The average level of neighborhood safety felt among the respondents was 2.00 points in the four-point scale (1 = very untrue, 2 = sort of untrue, 3 = sort of true, and 4 = very true). Parental Involvement/ Guardianship was perceived on average at 12.08 points in a four-point distribution (1 = Less than once a month, 2 = About once a month, 3 = A few times a month, and 4 = At least a few times a week). These statistics indicate that, on average, neighborhood level fear of crime, neighborhood level of safety were not very high. On the other hand, parental supervision is above

average, indicating that the respondents felt a high level of parental involvement/guardianship.

Table 1 Individual-Level Descriptive Statistics

Variable	Mean	SD	Min	Max
(N=1311)				
DEPENDENT VARIABLES				
Neighborhood Fear	8.03	2.64	5	15
Neighborhood Safety	6.01	2.31	3	12
NEIGHBORHOOD-LEVEL INDEPENDENT VARIABLES				
Physical Disorder	1.17	.29	.61	2.17
Social Disorder	.57	.07	0	.31
Physical Decay	.05	.07	0	.40
Neighborhood Cluster SES	.95	.80	0	2.00
INDIVIDUAL-LEVEL INDEPENDENT VARIABLES				
Intact Family	.53	.50	0	1
CONTROL VARIABLES				
Age	13.89	2.43	9	20
Race				
Black	.31	.46	0	1
Hispanic	.42	.49	0	1
Whites	.21	.39	0	1
Other	.12	.33	0	1
SES	3.32	2.13	0	7
Female	.50	.25	0	1
Parental Involvement	12.08	2.75	4	16

Table 2 presents the neighborhood level descriptive statistics. Of all the neighborhood observations, 46 percent (on a scale of 1 to 3, with 3

being the highest level) believed that signs of physical disorder were prevalent enough within the neighborhood to pose a problem. The largest form of physical disorder was tagging style graffiti. In looking at social disorder, 36 percent (on a scale of 0 to 1, with one being highest level) of the neighborhoods presented a high level of disorder with garbage/litter on the sidewalks and street and adults loitering being the largest categories. The dilapidated buildings were reported as the largest problem with physical decay, with slightly more than one-fourth of the neighborhoods observed reported a high level (on a scale of 0 to 1, with one being the highest level) of physical decay.

Table 2 Neighborhood-Level Descriptive Statistics (N=75)

Variable	Mean	SD	Min	Max
PHYSICAL DISORDER	1.17	.30	.61	2.17
SOCIAL DISORDER	.06	.07	0.00	.31
PHYSICAL DECAY	.05	.07	0.00	.40
NC SES	.95	.80	0.00	2.00

The neighborhood cluster (NC) socio-economic status shows that 35 percent of the neighborhoods observed were considered to be lower SES and only 29 percent were rated in the high category.

Hierarchical Linear Modeling Analyses

The models for neighborhood fear of crime and neighborhood safety were estimated using HLM Version 6.04, following a three-step modeling strategy: the unconditional (one-way ANOVA) model, random coefficient model including only individual level predictors, and the fixed effects full model including both individual-level and neighborhood-level variables simultaneously. Here the two dependent variables "neighborhood fear" and "neighborhood safety" were treated as an interval level measure.

Model building begins with a simple unconditional model, which partitions the variance of dependent variables into between group variance and within group variance (Raudenbush, Bryk, & Cheong, 2000). This one-way ANOVA with random effects, therefore, provides some preliminary information about the amount of variation in fear and safety that lies within and between the neighborhoods and if the reliability of each neighborhoods sample mean is reliable as an estimate of its true population mean. That is, unconditional or one-way ANOVA models determine the amount of variation in the outcomes within and between neighborhoods, and

provide a reliability estimate for the outcome variable at the aggregate level.

Table 3. Unconditional Model: Variation in Fear across Neighborhoods

Fixed Effect	Coefficient	SE
Fear	8.132	0.455

Random Effect	Variance Component	df	χ^2	ρ
Fear	3.806	9	15.95	.067
Level-1	5.270			

Table 3 shows an unconditional model, and the results indicate that the variance of fear across neighborhoods was not statistically significant (.067; $p < .05$). The intraclass correlation indicates that approximately 5 percent of the variation in fear was due to between neighborhood differences, and the remainder was due to differences between individuals (i.e. within-neighborhoods). This analysis indicates that neighborhood differences appear to exist, but they are not specified as to how and what matters.

Table 4 shows an unconditional model, and the results indicate that the variance of safety across neighborhoods is statistically significant (1.54; p .05). The intraclass correlation indicates that

Table 4. Unconditional Model: Variation in Safety across Neighborhoods

Fixed Effect	Coefficient	SE
Safety	6.280	3.833

Random Effect	Variance Component	df	χ^2	ρ
Safety	1.548	8	19.474	.013
Level-1	4.323			

approximately 31 percent of the variation in safety was due to between neighborhood differences, and the remainder was due to differences between the individuals. The analysis does indicate differences do exist, but do not specify which of those differences matter.

In this one-way ANOVA model, reliability is a function of sample size in each of the neighborhoods and intraclass correlation is the proportion of the total variance that is between neighborhoods relative to the amount that is within neighborhoods (Raudenbush & Bryk, 2002). The models are expressed as:

Level-1 Model: $Y_{ij} = \beta_{0j} + r_{ij}$

Level-2 Model: $\beta_{0j} = \gamma_{00} + u_{0j}$

In this one-way ANOVA model, the level-1 model represents variations in individuals fear of crime within each neighborhood: where Y_{ij} is the fear of neighborhood crime of individual i in neighborhood j, the intercept β_{0j} represents the average fear of neighborhood crime of neighborhood j, and the random effect r_{ij} is assumed to be normally distributed with a mean of zero and a variance of σ^2. The level-2 model accounts for variation in fear of crime between neighborhoods: where the intercept γ_{00} is the grand mean of individual's fear of crime across all neighborhoods. The random effect u_{0j} is assumed to be normally distributed around mean of zero and variance of τ_{00}.

Random Coefficient Regression Model

Prior to modeling neighborhood-level effects, a random coefficient regression model was estimated including individual-level variables, X, that were selected based on their theoretical relationship to neighborhood fear of crime. The model examines the multivariate association between the individual-level variables and the neighborhood fear of crime and shows whether any of the individual-level slopes vary

significantly across neighborhoods. Unlike ordinary linear regression analysis, the multilevel analysis requires not only proper specification of the individual-level regression equation, but also specification of the variance components to be estimated. Random coefficient regression models help determine whether a slope is to be fixed within the neighborhoods or should be specified as random across neighborhoods depending on the significance of variance across those neighborhoods.

If a neighborhood-level slope varies across neighborhood, the slope can be estimated using neighborhood-level predictors (Roundtree, Land, & Meithe, 1994). In this model, all of the interval-ratio level variables at the individual level were centered around the group means since this allows for interpretation of parameter estimates as person level effects within each group. Dummy coded variables remained uncentered. The intercept term takes a different meaning according to the type of centering. Three options are considered (Hoffman & Gavin, 1998). First, researchers choose raw metric scaling with no centering and thus the intercept is the expected value

of Y_{ij} when X_{ij} is zero. The second option is grand mean centering where the grand mean of the level-1 predictor is subtracted from each level-1 case and the intercept is the expected value of Y_{ij} when X_{ij} is the average across all individuals in the sample. The third and final option is group mean centering is where the relevant group mean of the level-1 predictor is subtracted from each case and then the intercept is the expected value of Y_{ij} when X_{ij} is equal to the groups mean.

Researchers often use centering for meaningful interpretation of the intercept. Since β_{0j} becomes the dependent variable in the level-2 models, its meaning must be clear so as to understand what is being predicted. For example, the neighborhood level of fear when the individual SES is zero does not provide sensible information. Therefore, individual SES is often centered around the group mean or sometimes the grand mean. In the case that individual SES is grand mean centered; the intercept is interpreted as the expected fear of crime when SES is the average of all individuals. There is no statistically correct choice among centering options and the choice should be driven

by theory and the research question under investigation (Hoffman & Gavin, 1998; Koenig & Lissitz, 2001). The random coefficient regression of the within-neighborhood model is expressed as:

Individual Level: Neighborhood Fear = $\beta_0 = \beta_1 + \beta_2 + \beta_3 + \beta_4$
$+ \beta_5 + \beta_6 + \beta_7 + \beta_8 + r$

Individual Level: Neighborhood Safety = $\beta_0 = \beta_1 + \beta_2 +$
$\beta_3 + \beta_4 + \beta_5 + \beta_6 + \beta_7 + \beta_8 + r$

This individual level model can be conceived of in the same way as a multiple regression model. β_0 is an intercept for a given neighborhood. β_1 (age), β_2 (Salary), β_3 (Race – Black), β_4 (Race – Hispanic), β_5 (Race – other), β_6 (Intact Family), β_7 (Parental involvement/guardianship), and β_8 (Female) represents the effect of the independent variables on neighborhood fear of crime and neighborhood safety. The unique effect associated with the individual is r. In contrast to Ordinary Least Squares (OLS) regression models, the random coefficient regression model allows the intercept to take on different values in each of the neighborhoods. The results indicated that for parental supervision and intact families had effects, which

varied across districts and showed a high reliability of variance, thus the slopes of these variables remained random across districts (Raudenbush & Bryk, 2002).

Fixed Effect Model (Full Model)

After modeling the random coefficient model, the level-2 models are formulated. In the level-2 model, the coefficients from the level-1 model become the dependent variables. This model allows the study of the effects of neighborhood level variables on the variance among the values of the coefficients. The models are expressed as:

$$\beta_0 = \gamma_{00} + \gamma_{01} + \gamma_{02} + \gamma_{03} + \gamma_{04} + u_0$$
$$\beta_1 = \gamma_{10} + \gamma_{11} + \gamma_{12} + \gamma_{13} + \gamma_{14} + u$$

The intercept (β_0) is hypothesized to be a function of the overall mean of neighborhood fear of crime and neighborhood safety (γ_{00}), physical disorder (γ_{01}), social disorder (γ_{02}), physical decay (γ_{03}), neighborhood SES (γ_{04}), and a unique (or random) effect associated with each neighborhood (u_0). The slope (β_1) is hypothesized to be a function of the mean age of

individuals across neighborhoods, physical disorder (γ_{10}), social disorder (γ_{20}), physical decay (γ_{30}), neighborhood cluster SES (γ_{50}), and a unique (or random) effect associated with each neighborhood (u_1). Here, the slope was considered random across districts since u_1 is included in the model. If the effect does not significantly vary across districts, it is fixed by excluding the error term (u_1) in the model. Several similar models for slopes are generated based on the number of variables used at the individual level.

Through this model building procedure, finally, a series of combined hierarchical models are estimated to investigate simultaneously the effects of both individual- and neighborhood-level variables. Neighborhood level variables were left un-centered. Then, the neighborhood level predictors were entered into the model. On the basis of theoretical consideration and statistical results, the final two models were defined and fear of crime and neighborhood safety are considered as the outcome measure.

The model is therefore run under full maximum likelihood in which variance-covariance parameters and

fixed level-2 coefficients are estimated by maximizing their joint likelihood (Raudenbush et al., 2000).

Table 5 presents two models for fear of neighborhood crime. Fear of crime was measured as a factor based scale in this analysis. Model 1 presents the random coefficient model. The model examines the association between individual-level variables and the outcomes in a multivariate context. This model helps determine which of the individual-level slopes vary significantly across neighborhoods. All individual-level variables were left un-centered. At the individual level, the results from Model 1 show that compared to whites, black and Hispanic youth report higher levels of fear of crime, as do those with lower levels of parental involvement/guardianship. Younger respondents, along with females, reported lower levels of fear of crime. Interestingly, neither family SES nor family structure was a significant predictor of fear of crime.

Model 2 presents fixed effect hierarchical models, which are fully combined models. All neighborhood-level variables were left un-centered. Based on the theoretical and statistical reasons discussed above,

cross-level interactions were considered for all the neighborhood-level predictors to determine if any of them interacted with the individual-level predictors.

At the neighborhood level, the results from Model 2 show that individuals residing in neighborhoods characterized by higher levels of physical disorder and lower levels of neighborhood socio-economic status reported significantly higher levels of fear of crime. Additionally, all the individual-level predictors that were significant in Model 1 remained significant in Model 2.

The findings from Model 2, therefore, indicate that both neighborhood-level and individual-level variables are significant predictors of fear of crime. To address the research question concerning which are the better predictors of fear of crime, we can compare the

Table 5 – Hierarchical Linear Model for Neighborhood Fear of Crime (N = 1311 in 75 Neighborhoods).

Variables	Model 1	Model 2
Constant	11.99*** (.704)	11.45*** (.751)
INDIVIDUAL LEVEL		
Age	-0.27*** (.032)	-0.26*** (.032)
Female	-0.61*** (.142)	-0.59*** (.141)
Family SES	0.00 (.040)	0.00 (.041)
Race		
Black	1.00*** (.265)	0.89** (.270)
Hispanic	1.76*** (.264)	1.47*** (.270)
Other	0.56 (.291)	0.45 (.297)
Intact	-0.18 (.170)	-0.13 (.171)
Parental Invol.	-0.08** (.029)	-0.07* (.029)
NEIGHBORHOOD LEVEL		
Physical Disorder	----------	0.72* (.309)
Social Disorder	----------	0.15 (1.46)
Physical Decay	----------	-1.33 (1.19)
Neighborhood SES	----------	-0.28* (.140)

Note: Entries are standardized coefficients and numbers in parentheses are standard errors; * p < .05, ** p < .01, *** p < .001

standardized regression coefficients. Here we see that "Hispanic" is the strongest predictor of fear of crime, followed by "black." Physical disorder and "female" are also strong predictors. Overall, with these data at least, the individual-level variables are more

powerful predictors of fear than are the neighborhood-level variables.

As for family structure moderating the effects of neighborhood disadvantaged/disorder on fear of crime, there were no significant differences in the slopes for youth in intact homes compared to youth in alternative family forms. Gender differences in fear of crime were found, however the direction was opposite than hypothesized, in that *females* reported lower levels of fear than did males. None of the cross-level interactions were significant; therefore the results are not displayed.

Table 6 presents two models predicting feelings of neighborhood safety. The same individual- and neighborhood-level variables presented in Table 5 are used. Again, all variables at the individual level were left un-centered. At the individual level, Model 1 shows that older respondents, as well as those experiencing higher levels of parental involvement/guardianship, report higher levels of safety; while black and Hispanic respondents report lower levels of neighborhood safety. Female was not a

significant predictor of safety, nor was family SES or intact home.

Table 6 – Hierarchical Linear Model for Feelings of Neighborhood Safety (N = 1311 in 75 Neighborhoods).

Variables	Model 1		Model 2	
Constant	6.87***	(.531)	6.14***	(.607)
INDIVIDUAL LEVEL				
Age	0.08**	(.028)	-0.08**	(.027)
Female	-0.00	(.127)	0.04	(.142)
Family SES	0.00	(.032)	-0.00	(.031)
Race				
Black	0.88**	(.240)	0.67**	(.265)
Hispanic	1.51***	(.214)	1.04***	(.217)
Other	0.42	(.275)	0.23	(.255)
Intact	0.03	(.152)	0.12	(.141)
Parental Invol.	0.05*	(.025)	-0.05*	(.023)
NEIGHBORHOOD LEVEL				
Physical Disorder	----------		0.83*	(.225)
Social Disorder	----------		0.04	(1.45)
Physical Decay	----------		-1.01	(1.02)
Neighborhood SES	----------		0.35***	(0.08)

Note: Entries are standardized coefficients and numbers in parentheses are standard errors; * p < .05, ** p < .01, *** p < .001

Model 2 presents fixed effect hierarchical models, which are fully combined models. All neighborhood level variables were left un-centered. Again, cross-level

interactions were performed; however none were significance therefore they are not presented. Among the neighborhood-level predictors, the results from Model 2 show that individuals residing in neighborhoods characterized by low levels of physical disorder and high neighborhood socio-economic status report significantly higher levels of safety within their perspective neighborhoods, while those living in low SES neighborhoods report lower levels of safety.

The findings from Model 2, like those from Table 6, indicate that both neighborhood-level and individual-level variables are predictors of neighborhood safety. Similar to that of fear of crime, using the standardized coefficients the individual-level variables appear to be better predictors of safety than neighborhood-level variables. Again, family structure was not a significant predictor of feelings of safety, and there does not appear to be differing effects of safety within the neighborhood for males and females.

Recall that the third research question posed for this project suggested that the effects of family

Table 7 – Hierarchical Linear Model for Neighborhood Fear of Crime, Males (N = 649 in 75 Neighborhoods).

Variables	Model 1	Model 2
Constant	11.38*** (.670)	10.88*** (.607)
INDIVIDUAL LEVEL		
Age	-0.27*** (.030)	-0.26*** (.031)
Family SES	-0.00 (.039)	-0.01 (.039)
Race		
Black	1.01*** (.247)	0.89** (.237)
Hispanic	1.76*** (.243)	1.47*** (.236)
Other	0.56* (.265)	0.44 (.257)
Intact	-0.19 (.152)	-0.13 (.161)
Parental Invol.	-0.07* (.027)	-0.07** (.027)
NEIGHBORHOOD LEVEL		
Physical Disorder	----------	0.07** (.228)
Social Disorder	----------	0.07 (1.12)
Physical Decay	----------	-1.33 (0.98)
Neighborhood SES	----------	-0.29** (0.10)

Note: Entries are standardized coefficients and numbers in parentheses are standard errors; * p < .05, ** p < .01, *** p < .001

structure on fear/safety, and the relationships between family structure and neighborhood characteristics, may vary by gender; specifically, that intact family and it's moderating effect on neighborhood disorder/ disadvantage may be stronger for females than for males. Tables 7 and 8 present the hierarchical linear

models predicting fear and safety at both the individual level and neighborhood levels for males.

Table 8 – Hierarchical Linear Model for Feelings Neighborhood Safety in Males (N = 649 in 75 Neighborhoods).

Variables	Model 1	Model 2
Constant	6.87*** (.588)	6.28*** (.598)
INDIVIDUAL LEVEL		
Age	0.09** (.027)	0.08** (.027)
Family SES	0.00 (.030)	0.00 (.031)
Race		
Black	-0.88*** (.217)	-0.67** (.224)
Hispanic	-1.51*** (.186)	-1.04*** (.217)
Other	0.42 (.253)	0.23 (.255)
Intact	0.28 (.152)	0.12 (.140)
Parental Invol.	0.52* (.023)	0.04 * (.022)
NEIGHBORHOOD LEVEL		
Physical Disorder	----------	-0.83** (.224)
Social Disorder	----------	0.02 (1.44)
Physical Decay	----------	0.00 (1.01)
Neighborhood SES	----------	0.35** (0.09)

Note: Entries are standardized coefficients and numbers in parentheses are standard errors; * p < .05, ** p < .01, *** p < .001

Model 1 shows the individual level variables and Model 2 presents both individual and neighborhood level variables. As Table 7 illustrates, the predictors of fear of crime for males differ little from the findings

using the sample as a whole. The only difference is that the racial category "other" is significant in Model 1, but loses significance in Model 2 when the neighborhood-level variables are added to the model.

When considering males and perceptions of neighborhood safety, Table 8 shows that as age increases so do feelings of safety, whereas black and Hispanic boys report a lower level of safety within the neighborhood. The more parental involvement also increases feelings of safety. When the neighborhood-level variables were added high signs of physical disorder and low neighborhood SES predicted a decrease in feelings of safety.

Table 9 presents models predicting level of fear for females. The results show that as age increases, level of fear decreases. Black or Hispanic girls report higher levels of fear within the neighborhood compared to whites. Those that indicate a higher level of parental involvement/guardianship report lower levels of fear. At the neighborhood level both physical disorder and neighborhood SES were significant. Higher levels of physical disorder produce higher levels of fear. The lower the neighborhood SES, the higher the level of fear.

Table 9 – Hierarchical Linear Model for Feelings of Fear in Females (N = 662 in 75 Neighborhoods).

Variables	Model 1	Model 2
Constant	11.99*** (.703)	11.48*** (.750)
INDIVIDUAL LEVEL		
Age	-0.27*** (.032)	-0.26*** (.031)
Family SES	-0.00 (.040)	-0.01 (.039)
Race		
Black	1.01*** (.264)	0.89** (.237)
Hispanic	1.76*** (.263)	1.47*** (.236)
Other	0.55 (.291)	0.44 (.257)
Intact	-0.19 (.170)	-0.13 (.161)
Parental Invol.	-0.07 (.029)	-0.07** (.028)
NEIGHBORHOOD LEVEL		
Physical Disorder	----------	0.71** (.228)
Social Disorder	----------	0.06 (1.11)
Physical Decay	----------	-1.33 (0.98)
Neighborhood SES	----------	-0.29** (0.10)

Note: Entries are standardized coefficients and numbers in parentheses are standard errors; * p < .05, ** p < .01, *** p < .001

Table 10 – Hierarchical Linear Model for Feelings of Neighborhood Safety in Females (N = 662 in 75 Neighborhoods).

Variables	Model 1	Model 2
Constant	6.86*** (.589)	6.24*** (.605)
INDIVIDUAL LEVEL		
Age	0.08** (.029)	0.08** (.027)
Family SES	0.00 (.032)	0.00 (.031)
Race		
Black	-0.88** (.240)	-0.67* (.224)
Hispanic	-1.51*** (.213)	-1.04*** (.217)
Other	0.42 (.275)	0.23 (.255)
Intact	0.02 (.152)	0.12 (.140)
Parental Invol.	0.05* (.025)	0.04** (.023)
NEIGHBORHOOD LEVEL		
Physical Disorder	----------	0.83 * (.225)
Social Disorder	----------	0.14 (1.44)
Physical Decay	----------	-0.00 (1.01)
Neighborhood SES	----------	0.35*** (0.09)

Note: Entries are standardized coefficients and numbers in parentheses are standard errors; * p < .05, ** p < .01, *** p < .001

For feelings of safety within the neighborhood, Table 10 shows that females who are older and have more parental involvement feel safer within the neighborhood, while Hispanic and black girls report lower levels of safety. When adding the neighborhood-level variables a few minor changes are noted. At the

racial category, those indicating they are black lose a degree of significance and those that experience high parental involvement increases in significance. Physical Disorder and Neighborhood SES remain predictors of safety.

Overall, the findings for the analyses run separately by sex produced very similar findings to the analyses with the combined sample. Many of the same variables were significant predictors of both feelings of fear and safety, family structure was not a significant predictor of either dependent variable, and none of the cross-level interactions were significant.

CHAPTER 5 – DISCUSSION

In the preceding chapters I investigated the following research questions: Are neighborhood- or individual-level variables more powerful predictors of fear of crime? Is the impact of neighborhood characteristics on fear of crime moderated by family structure? The final question sought to determine whether or not the moderating effect of family structure on the relationship between neighborhood characteristics and fear of crime differs by gender. In this section I will discuss the results of the analysis for fear of crime within the neighborhood, then the feelings of safety within the neighborhood, and finally differences between gender feelings of fear and safety. I then discuss implications for future research.

In the previous chapter, Table 4 presented the results of the hierarchical linear regression analysis for neighborhood fear of crime. The questions asked are: Are individual- or neighborhood-level variables more powerful predictors of fear of crime? The initial model shows the impact that individual-level variables have on fear of crime. This model supports the notion that the younger a child is the higher their level of

fear. When referring to racial characteristics, blacks and Hispanics are significantly more fearful than other racial categories, as were those that reported having lower levels of parental involvement/guardianship.

In Model 2 of neighborhood fear of crime the neighborhood-level variables were added. On the individual-level variables age, gender, and Hispanic remained significant predictors of fear. Whereas those who indicated their racial category as black and the parental supervision scale remained significant but at a lower level of significance compared to the previous model. As for the neighborhood-level variables, only two were significant predictors of fear. Residents in those neighborhoods with signs of physical disorder (graffiti, garbage on the street, and abandoned cars) report higher levels of fear. Also, respondents residing in neighborhoods with higher levels of neighborhood SES (a variable that was created by the original researchers) reported lower levels of fear. According to this analysis, it appears that individual-level variables are stronger predictors of fear of crime than those variables representing the neighborhood-level.

In Table 5, also presented in the previous chapter, the results for the hierarchical linear regression analysis for feelings of neighborhood safety are reported. The question asked is similar to that of the neighborhood fear analysis: Do individual- or neighborhood-level variables more powerfully predict feelings of safety within the neighborhood? The initial model shows the age of the individual is a strong predictor for feelings of safety, the younger the individual the less safe they feel alone within the neighborhood. Also those that report being black or Hispanic report feeling less safe in the neighborhood, as did those that reported lower levels of parental involvement/guardianship.

In Model 2 predicting feelings of safety, the neighborhood-level variables were added. On the individual-level variables, age and those described as black and Hispanic were significant predictors of feeling safe around the neighborhood. Those that report little to no parental involvement/guardianship reported feeling less safe than those that have higher levels. Individuals living in more advantaged neighborhoods report feeling safer than their counterparts when

neighborhood-level variables were added to the model. Youth living in neighborhoods with higher levels of physical disorder also report lower levels of safety. In this analysis, the individual-level variables appear to be stronger predictors of neighborhood safety than the neighborhood-level variables.

In comparing the two dependent variables, it appears that the individual-level variables are a more powerful predictor of both fear of crime and feelings of safety. While respondent's age, race/ethnicity, and level of parental supervision remained significant through both models and both dependent variables, gender as not a significance predictor of feelings of safety. The neighborhood-level variables did fluctuate on their levels of significance; physical disorder remained at the same level of significance for both fear of crime and feelings of safety, while neighborhood socio-economic status was stronger when predicting feelings of safety.

The second question addressed was: Is the impact of neighborhood characteristics on fear of crime moderated by family structure? It does not appear that the individual's family structure plays a significant

role in predicting fear of crime and/or safety, nor did it interact with any of the neighborhood-level variables. Although previous literature strongly suggests that family structure is a consistent predictor of a variety of outcomes for children, it may not be the "intactness" of the family that produces less fear, rather it may be that parental involvement/guardianship mediates the relationship between family structure and fear of crime/safety. The level of parental involvement/ guardianship that children experience was a better predictor of fear than was living in an intact family, but even it did not interact significantly with any of the neighborhood-level variables, suggesting that the two sets of predictors operate independent of one another.

The third question addressed in the analysis sought to determine if the moderating effect of family structure and the relationship between neighborhood characteristics and fear of crime differed by gender. In the initial fear of crime analysis, when separating females and males, the models for females showed that age, race, and little to no parental supervision was a significant predictor of fear of crime. At the

neighborhood-level both physical disorder and neighborhood socio-economic status were also significant at predicting fear of crime. As for males, the same variables that predict fear of crime in females also significantly predict fear of crime in males.

When looking at the feelings of safety between both males and females the results are again similar; the individual's age, race/ethnicity (either black or Hispanic), and level of parental supervision are significant predictors of fear of crime and feelings of safety. These results suggest no significant difference by gender when predicting fear of crime and neighborhood safety. Finally, as was the case with the findings for the combined sample, there was no evidence of cross-level interactions when the models were run separately by sex.

Although much of the past research on fear has been conducted using adults rather than children, this study makes a meaningful contribution by examining children's feelings of fear. The work of May et al. (2002) suggests that adolescent and adult fear of crime share many of the same predictors, but there are some

significant differences as to what contributes to fear of crime. This is particularly true with regards to race and class. A small number of articles on children's fear of crime have been published; however these articles have a limited focus or lack a thorough approach to fear of crime (May, 1999; May & Dunaway, 2000). Adolescents are more likely to be victimized by violent crime than is any other group (Rennison, 2000), which is particularly interesting in that research among adults indicates that fear of crime is heightened when individuals perceive themselves as more vulnerable and likely to be victimized. It follows that if adolescents accurately perceive themselves at greater risk of criminal victimization, it is possible that they may be more fearful of crime than their adult counterparts (May et al., 2002). May and Dunaway (2000) also observed that youth who perceive their neighborhoods as being disorderly and at risk of victimization were more fearful of crime.

In comparing past research on adolescent fear of crime with this research, neighborhood characteristics of physical disorder and decay are consistent with one another as well as children's age, racial composition,

and neighborhood socio-economic status. However, where this research differs from past research is gender and fear of crime, with past research indicating that females are more prone to express a greater fear of crime than males and this research indicates the opposite. Also, I look at the amount of parental involvement, and conclude that it is not the intact familial setting that produces less fear, as past research indicates, rather it is the amount of time and type activity that produces less fear in children. Family structure does not appear to be an independent predictor.

Limitations and Future Research

This dissertation has extended research on the impact of neighborhood characteristics, parental involvement/guardianship, and family structure on fear of crime and safety among adolescents aged 9 to 15. The findings have somewhat limited generalizability, since the data were collected in the Chicago area neighborhoods chosen by the principal investigators. The comparability to other cities within different states may have produced differing results. Perhaps children living in urban areas are affected by

different variables than are children living in other conditions.

Another limitation to this study and data is that several neighborhoods used have very few subjects living within them. Small numbers of children within neighborhoods in relation to a large number of variables included in the model can be linked to insufficient power to detect significant effects due to the low between-group variation, which in this case was cause to eliminate neighborhood clusters (Raudenbush & Bryk, 2002). Sampson et al. (1999) suggest the sample size within a group range between 15 and 20 to help detect significance. For this study, the sample size within groups ranged from 5 and 18 per group.

A third limitation is the use of cross-sectional data. A longitudinal study of the subjects' fear of crime and safety over time may provide a better concept of how much fear changes over a child's lifetime living in the same neighborhoods. However, the fear of crime survey was only conducted in Wave 2 of data collection, and only asked those that indicated their age to be 9, 12, and 15. If in Wave 1 and again in Wave 3, respondents were asked about their neighborhood

conditions and fear of crime and safety, there could have been a considerable change from respondents in Wave 1, who would have been 6, 9, and 12 years old at the time. Then again in Wave 3, the respondents were asked the same questions again, this stage they would have been 12, 15, and 18, a different level of fear and safety may have been indicated.

Finally, there were several respondents who were excluded from the analysis due to significant amounts of missing data. Respondents who did not indicate a gender, race, neighborhood identity, or answer all questions used for a variable scale were eliminated.

Looking beyond the limitations, this study did provide interesting insight into individual levels of fear and feelings of safety. The amount of time one spends with a parent or guardian and the types of activities they do together is more likely to reduce fear of crime and increase feelings and safety within the neighborhood, and this appears to be more important than the structure of the family.

For future research, I would like to again look at the neighborhood level data, as well as indicators of fear and safety, and attempt to determine whether or

not neighborhood collective efficacy reduces feelings of fear and increases perceptions of safety. Feelings of community involvement and attachment to members of your community are thought to reduce feelings of insecurity and fear, as well as reduce the amount of criminal activity present in the neighborhood.

Another interesting area for future research would be using fear of victimization as an independent variable—i.e., does fear of crime lead children to negative adolescent/adult outcomes; the hypothesis being that children who fear being victims of crime may involve themselves in deviant or delinquent behavior in order to "fit in" with the rogue crowd. These outcomes would be measured using several well-being/achievement delinquency measures. The use of the PHDCN data provides several elements where fear and neighborhood conditions can be studied using various concepts. After conducting the analysis presented here, I decided to control for an additional variable to determine if anything could improve the results. I re-ran the analysis and controlled for prior or current offending of the subjects. The subjects' offending was not a significant predictor of fear of crime, nor did it

change the significance of the other variables in the models.

The study of fear of crime goes beyond learning about perceptions of possible victimization and feelings of safety. The primary concern is how the community environment, individual traits, and the level of parental supervision or simple involvement contribute to the quality of life within the neighborhood, thus decreasing feelings of fear. This research shows that neighborhood physical condition contributes to higher levels of fear and lower feelings of safety while one is participating in outdoor activities within the community. As Wilson & Kelling (1982) note, run down dilapidated houses and buildings contribute to increases in neighborhood crime, and this research also indicates that those same conditions of decay causes feelings of security to diminish and feelings of fear to increase.

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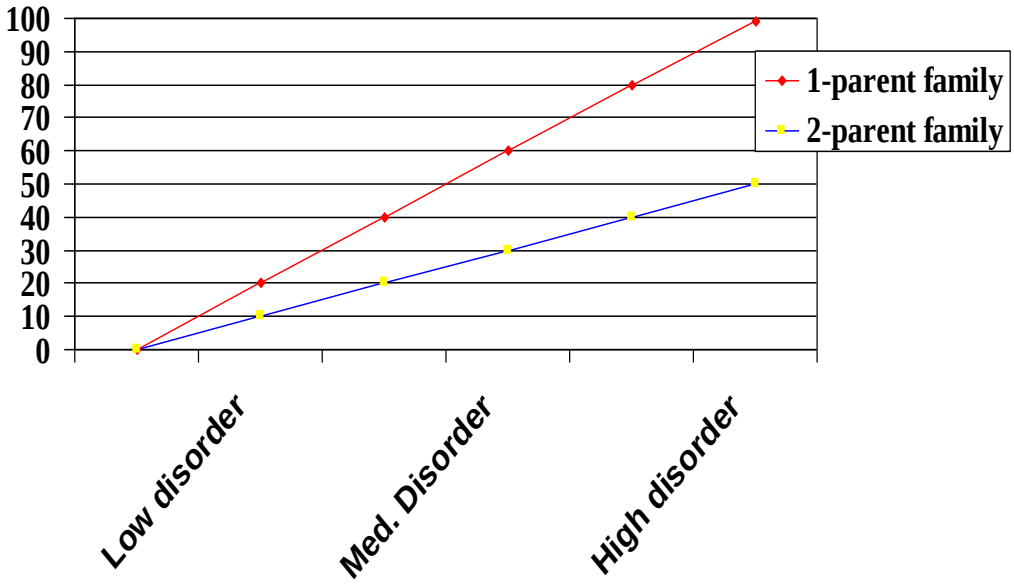
APPENDICIES

APPPENDIX A

Figure 1: Family structure as a hypothesized moderator of the relationship between neighborhood disorder/ disadvantage and fear of crime



Appendix B. Rotated Factor Matrix of Variables.

Variables	Factor 1
Fear of Neighborhood Crime (Mean = 8.11)	
Fear of viol. in Neighborhood	.765
Fear of viol. in frt. home	.746
Fear viol. inside home	.653
Fear of viol. in school	.631
Fear of viol. on way school	.697
Eigenvalue = 2.45	
% of variance = 49.03	
Feelings of Safety (Mean = 8.94)	
Can do things safely w/ friends	.653
Safe w/in few blocks home	.803
Safe alone w/in neighborhood	.797
Eigenvalue = 1.70	
% of variance = 56.86	
Parental supervision (Mean = 7.84)	
Past month freq. taken places	.763
Past month freq. outdoor act	.680
Past month freq. errands	.590
Past year incl. in family trip.	.609
Eigenvalue = 1.76	
% of variance = 44.06	
Physical Disorder	
Gang Graffiti	.510
Tagging Graffiti	.894
Political Graffiti	.121
Evidence Graffiti covered	.920
Garbage/Litter on street	.030
Abandoned cars	-.016
Eigenvalue	2.09
% of variance	34.92
Social Disorder	
Adults fight & argue	.089
Adults loiter & hang out	.259
Prostitutes on face block	-.177
People sell drugs on block	.748
People drink alcohol	.688
Beggars/panhandlers	.599
Drunk people on block	.464

Appendix B. Rotated Factor Matrix of Variables (cont).

Variables	Factor 1
Physical Decay	
Land Use – Vacant	.892
Condition of units	.584
Condition of buildings	.794
Condition of rec. facility	.437
Burned abandoned house	.874
Burned abandoned buildings	.820
Eigenvalue	3.39
% of Variance	56.56

Note: Principal Component Analysis of extraction and Varimax rotation.